

DEGREE CELSIUS

Winter 2011

THE NEWSLETTER FROM DAIKIN REEFER

# **zeSTIA™**

**premium cargo  
care & ultimate  
energy efficiency**

a reefer for a cleaner,  
brighter future



#### **meet the team**

the story behind ZESTIA's development

#### **Earthquake action**

Daikin supports Japan's recovery

#### **technology focus**

Life Cycle Climate Performance

#### **market focus**

importing pork to Japan

#### **customer focus**

COSCO, Beacon, Cronos, CSCL & MOL

#### **Secondhand Touch & Feel**

Daikin promotes its resale value



# Welcome

## A message from Mr Shin Furuta, who took over as President of Reefer Business in June 2011

It is a privilege for me to be writing to you, our customers and readers, as the new President of Reefer Business, Daikin Refrigeration Division. I am very proud to continue to provide cutting-edge technology to the reefer world to support you and your customers.

The first principle of Daikin's Group Philosophy is to "Create New Value by Anticipating the Future Needs of Customers". We are more than happy – indeed, always delighted – to listen to your issues and to propose innovative solutions.

This year, Daikin has established its strategic management plan, Fusion

15, for the period FY2011-2015, with 11 Group-wide Core Strategy Themes defining our future development direction and strategic policy.

*Our first principle is to create new value by anticipating our customers' future needs*

Specifically, Daikin will make collective Group-wide efforts to implement four New Growth Strategy Themes to incorporate the changes of the era of growth, four Management Constitution Reform Themes to succeed in the new era, and three Themes to Enhance

HR Capabilities Based on People-Centred Management.

Quantitatively, Daikin aims to expand its business scale by capturing demand in emerging markets to achieve over US\$2.5million (¥2 trillion) in Group-wide net sales, and an operating income ratio exceeding 10% in the target year FY2015. Daikin made a good start in the first half of this fiscal year.

In addition, please allow me to emphasise that Daikin is the company that takes the long view and has achieved its targets. In FY2010, Daikin achieved the global number one position in the AC field.

What's next? In expectation of future growth, Daikin believes that



the refrigeration business is the next pillar of its business portfolio. Our aspiration is to be the global number one player in the HVAC & R field, as well as to build a more close long-term relationship with you.

This year we suffered from the Great East Japan Earthquake, an unprecedented disaster that is still fresh in our minds. We had many emails and messages just after the earthquake and I take this opportunity

*Our aspiration is to be the global number one player in the HVAC & R field, as well as to build a more close long-term relationship with you.*

to express my appreciation for your warm words of support and encouragement.

The earthquake impacted the manufacturing industry in Japan,

including delay and shortages in parts supply. Fortunately, our reefer production and customer delivery schedule was not disrupted, as we transferred our entire reefer unit manufacturing business to China in 2008.

In such a difficult situation, I am very glad that we were able to bring our new ZESTIA unit to market this November. We have developed ZESTIA since the start of 2009 using DAIKIN's patented DC-inverter technology as a response to the major issues facing our customers. These include soaring fuel prices, pressure to operate in a more environmentally efficient way and a chronic lack of on-board operators, resulting from the growth in global reefer container trade and vessel upsizing. In this way, I take pride that ZESTIA is a new premium unit for the refrigerated container shipping and leasing industries and one that will fully meet customer needs today and for the future. ZESTIA will now be offered alongside

our existing LXE series, to provide customers with more choice.

Throughout this issue, you will find a lot of exciting information, including more details of our ZESTIA

*ZESTIA will now be offered alongside our existing LXE series, to provide customers with more choice.*

DC-inverter technology. We are confident that our products can meet and exceed your expectations. I look forward to working closely with you all and to serving you all for further prosperity.

**Shin Furuta**  
**President Reefer Business**  
**Daikin Refrigeration Division**

## Our new president

**Shin Furuta took over as President of Reefer Business, Daikin Refrigeration Division, in June 2011. He is based at Daikin Headquarters in Osaka, Japan.**

With over 20 years' experience in the air-conditioning and refrigeration business globally within Daikin, Shin Furuta previously served since November 2006 as Chief Operating Officer for J&E Hall International, a major supplier of refrigeration and HVAC solutions within the Daikin Group. Prior to that, he was a Director at Daikin AC Americas Inc and also worked as a Director at Daikin US Corporation.

Shin Furuta has also spent time in Daikin's Corporate Planning Department and in the design and technical development departments of the Air Conditioning Manufacturing Division. He started his career with Daikin in April 1991.

**President Shin Furuta has over 20 years' experience of the global refrigeration business.**



# Daikin unveils ZESTIA

Our new reefer provides best ever energy efficiency and precise cooling performance for chilled and frozen cargo

**D**aikin has launched a new container refrigeration technology that meets carrier and shipper demands for reduced energy consumption and greenhouse gas emissions. It achieves this without sacrificing precise cooling performance for chilled or frozen cargoes.

The LX10F container refrigeration unit, which has been named ZESTIA, uses Daikin's patented DC inverter scroll compressor technology to deliver energy savings of around 45%\* compared with existing designs on the market.

Proven technology has been adapted from the global air conditioning sector, where Daikin has been manufacturing inverter compressors since the late 1980s. The company produced its first DC inverter scroll compressor for air conditioning in 1998 and has since shipped over three million units worldwide. Daikin is currently the world's largest supplier of DC inverter-based air conditioning.

Traditional single speed compressors only deliver a fixed amount of cooling and heat and operate on a stop-start principle to maintain a set temperature. By contrast, inverter compressors run at variable speeds, allowing cooling capacity to be adjusted according to cargo needs, ambient conditions and how the refrigeration unit is used. This provides a more flexible, energy-efficient and accurate way of dealing with the extremes of perishable cargo transport, higher cooling capacity and low power operation.

\* This is a comparison of power consumption per hour with Daikin's LXE10E(-E) series calculated as a weighted average when the operation ratio for chilled mode (-9.9 to +30 °C) and frozen mode (-30 to -10 °C) is 60% and 40% respectively.





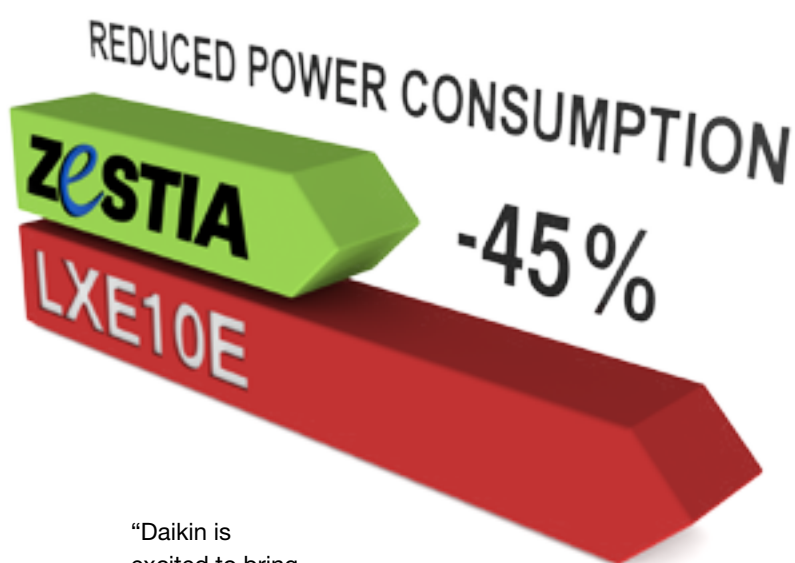
A key component of Daikin's DC inverter technology is the DAIKIN Reluctance DC motor, an innovative patented design that uses a strong neodymium permanent magnet for improved efficiency at all rotational speeds. Operating at high torque and efficiency without slip, the Reluctance DC motor further reduces power consumption, particularly during extended use at low frequencies.

Other new features include a two-speed fan motor, providing energy efficiency, improved condensation performance and stable temperature control to maintain cargo freshness and quality. The units are also

*“The container industry and its customers need sustainable refrigeration solutions”*

fitted with an AC line reactor to manage unstable and fluctuating electricity input in different parts of the world and transport conditions. The AC line reactor also prevents negative phase currents, which can cause power cuts or over-heating of the supply generators.

Combining high cooling performance and precision with low power consumption, ZESTIA is a premium unit suited for international operators requiring a product with premier performance and low energy consumption.




“Daikin is excited to bring its proven DC inverter technology to the global refrigerated container market,” says Shin Furuta, President of Daikin Reefer. “With an ever wider range of chilled and frozen goods being moved between

*Daikin is currently the world's largest supplier of DC inverter-based air conditioning*

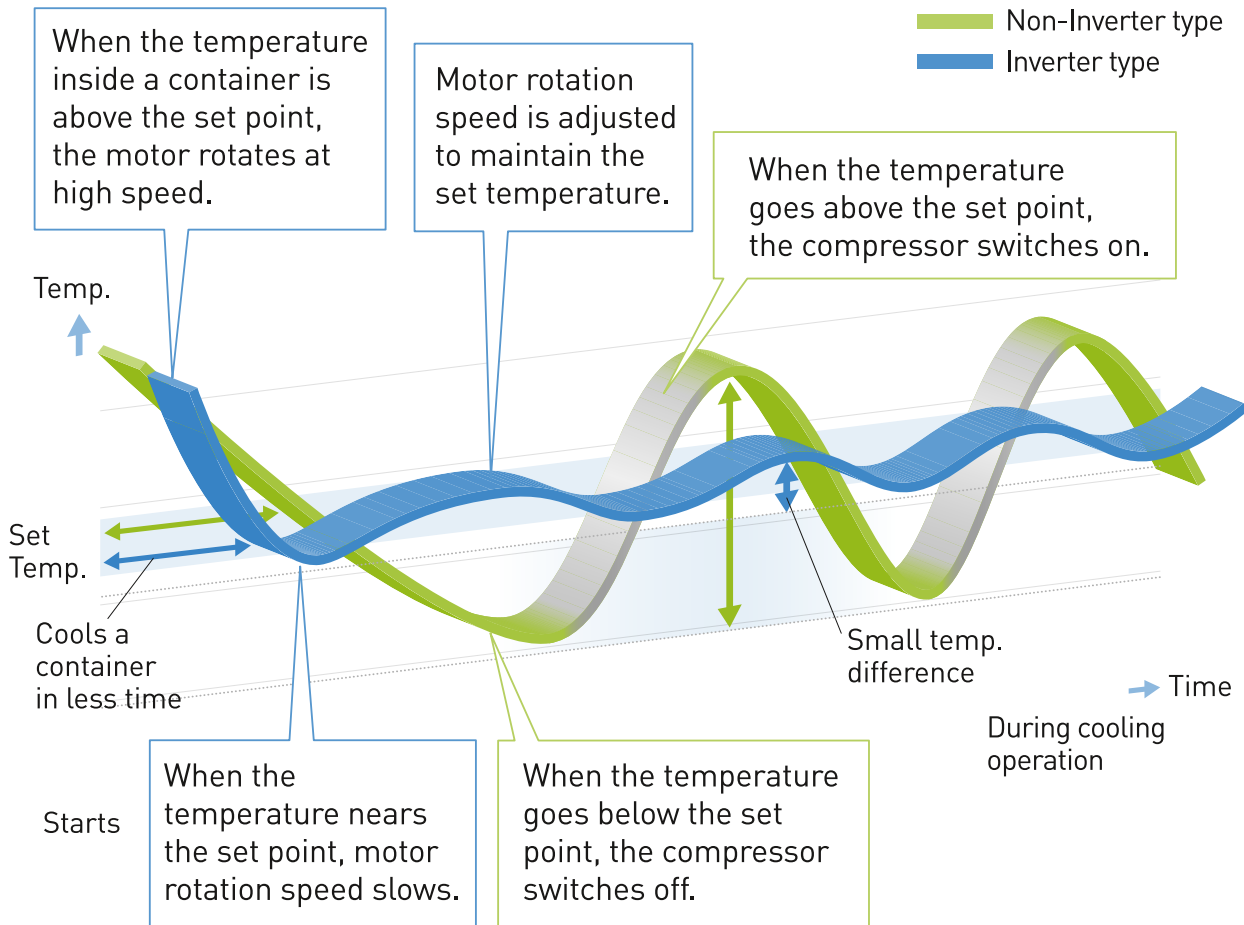
more regions of the world than ever before, and predictions of considerable growth in the coming five to ten years, the container industry and its customers need sustainable refrigeration solutions that allow them to operate in the most energy-efficient way while safeguarding the condition of valuable commodities.”



The new design goes into full production in November 2011 at Daikin's manufacturing facility in Suzhou, China, 

**Daikin is the only manufacturer who designs and manufactures all major components in-house, ensuring high-quality components.**

## Inverter vs non-inverter temperature control performance



where it will be built alongside Daikin's established LXE10E scroll compressor container refrigeration machine. The LXE10E is now in its 11th year of production, with units delivered to over 160 customers worldwide.

The basic design of the ZESTIA comes from the LXE10E model, ensuring that users benefit from the same reliability,

*The basic design concept of the ZESTIA comes from the LXE10E model, so users benefit from the same reliability and low maintenance*

low maintenance and ease of spare parts replacement. Daikin will continue to offer both designs, and will make further enhancements to the LXE10E in the coming years. Like the LXE10E, ZESTIA will run on R134a refrigerant.

Along with the new inverter technology, ZESTIA

incorporates a number of advanced control features to improve ease of operation, maintenance and troubleshooting. This includes the DecosV microprocessor controller, which features a user-friendly, 5.7-inch wide, backlit LCD screen to give a clear view of temperature records even in dark conditions, as well as a new graphical data display.

Furthermore, users can download trip data and upload software directly by using a USB memory stick in around 30 seconds, rather than needing to plug a laptop into the controller – an industry first. There is also a function making it easier for users to quickly identify failed parts and avoid misjudgement of problem parts, by using LED indicator lights on the controller.

Shin Furuta concludes, "After more than two years of research and development, we are confident that ZESTIA will meet the industry's needs both today and for the foreseeable future."

# LXE – the art of continuous improvement

The best selling scroll compressor reefer continues to get better



The highly reliable and energy efficient LXE reefer.

Daikin introduced the LXE series to the industry over ten years ago. With this extensive experience, the LXE series is recognized by the market as the machine with high reliability, which is reflected in the ever-growing number of satisfied customers.

The high reliability, operating performance and efficiency of the LXE series are born from completely in-house technologies. Taking advantage of its position as the world's number one air conditioner maker, Daikin is the only manufacturer that can perform everything completely in-house, from the design and development of refrigerants, compressors, temperature control technologies and other key components of container refrigeration unit, to processing and assembly. By producing everything at our own plants, we are able to assure exceptionally high product quality.

The LXE series has an energy-saving technology that uses a unique temperature management system featuring outstanding control technology, known as DTMS (Daikin Temperature Management System).

## Unique features

### Hot gas defrost and dehumidification

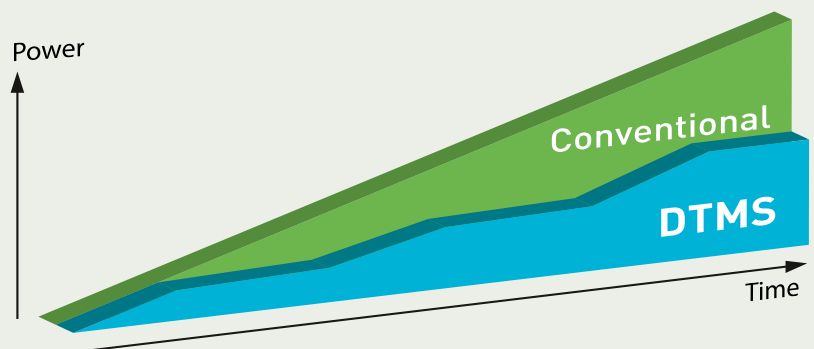
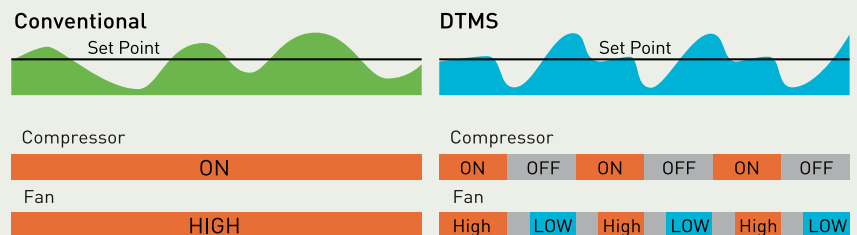
This unique system has proved its efficiency in both the reefer market and the refrigeration industry, providing the most efficient defrosting available. Daikin's hot gas system provides faster defrosting, with less heat escaping into the cargo area, thus improving conditions for the cargo. For dehumidification, the Daikin LXE10E hot gas system provides a fully controllable and powerful product, ensuring excellent conditions for your cargo.

### Auto pump down

This unique system automatically isolates the refrigerant for safe replacement of parts. The procedure is easy and requires no special skills. As well as being convenient, it is also environmentally friendly.

### Daikin Temperature Management System

A unique temperature management system featuring outstanding control technology.



# Development focus

## The story behind ZESTIA – Yuko Murao and Kaori Yasumoto interview three key members of the development team

**O**n 17 October, Daikin marketing team members Yuko Murao and Kaori Yasumoto visited the Kanaoka Factory in Sakai, Osaka prefecture, to interview three key members of the ZESTIA development team – our new reefer with DC inverter technology.

Hisaaki Takaoka manages the controller development team, including hardware and software.

Naoki Nakatani is in charge of inverter software development, including refrigerant control, MMI (Man Machine Interface) software development, and elaborating software to cooperate with the refrigerant control team.

Kazuyasu Matsui is responsible for the structural design of the product, other than electrical devices.

### How long did it take to develop the inverter technology?

We started work on the inverter concept in December 2008. It took 18 months of initial development, plus one year to finalize the latest version.

### What important benefits were derived from the designers and the hardware development?

Matsui: An important element is the energy-saving performance. Energy savings with capacity control using inverter technology is promoted in various senses on vessel.

The frequency of electrical power supply at many ports and terminals in many regions is 50Hz, compared to 60Hz on board a vessel. Without inverter technology, 50Hz can give only about 83% of performance for



**DECOS V controller features a large backlit 5.7in LCD display**

a power supply of 60Hz, but ZESTIA can deliver maximum performance in the 50Hz environment where there is lower frequency. That's because the number of revolutions of the compressor motor can be controlled variably, which is a characteristic of inverter technology.

Pull-down, which needs a large cooling capacity, is generally done at ports. So the contribution to energy-saving performance and faster pull-down is excellent.

In addition, this model has a high specification that enables more than sufficient performance of each device. The compressor with variable control

inverter technology extends the range of control and enables operation with the best capability of each part. And

*The concept of the controller is based on easy operation, easy maintenance and easy troubleshooting*

the modified shape of the evaporator's fan motor contributes greatly to energy-saving improvements.

### What was the thinking behind ZESTIA's DECOS V controller and software development?

Takaoka: The concept of the Decos V controller is based on: easy operation with a 5.7-inch LCD screen and straightforward keyboard sequence; easy maintenance with software uploading and data downloading direct to a secure USB memory stick; and easy troubleshooting with "I/O board checking" to help eliminate misdiagnosis of problem parts.

CHILLED	FULL COOL
SET POINT	SET-MODE
5.5°C	DEHUMID
SUPPLY	
12.2°C	
RETURN 14.7°C	DEF-INT 12HR
HUMID 91%RH	SET-HU 77%RH
HP: 1063kPa	LP: 57kPa

**The current status is easily checked on the clear display.**

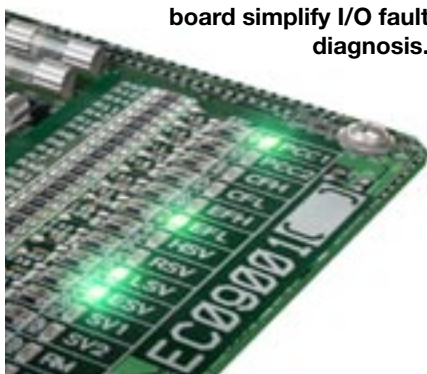


Nakatani: I developed the software focusing on the need for innovation of operability. For instance, introducing “cross key consequence” and “menu key” intuitively leads the user to the next operation. Before an important operation, the “reconfirmation” function comes up automatically.

Takaoka: There are many Daikin LXE series users around the world and they are used to the current LXE controller. Much of the LXE controller’s operability has been carried forward to the ZESTIA. We wanted to make the new machine truly user friendly, so we carefully evaluated what should be changed and what should be continued from the LXE.

Nakatani: The survey temperature data of the Supply Sensor and the Return Sensor against Set Point can

**Status LEDs on the controller board simplify I/O fault diagnosis.**



be displayed as a graph on the LCD display. One of our competitors has a similar function, but the DECOS V controller displays the temperature range more precisely.

**What about the reliability? Is there any change from the LXE series?**

Reliability is one of the most important features of our refrigeration units. The



**The ZESTIA team. Kazuyasu Matsui (top row, centre), Naoki Nakatani (middle row, far right) and Hisaaki Takaoka (front row, second from left) were interviewed for this article.**

ZESTIA offers the same reliability that the LXE is so well known for.

**What were the most difficult challenges you faced while developing the new model?**

Nakatani: We wanted the controller to be really user friendly, so we approached service, business and other parties for feedback at the development stage. There were

*As soon as you try the ZESTIA you will realise that it is indispensable for your business*

several contradictory opinions and to begin with we couldn’t reach targeted performance. I took this seriously and questioned every function and feature. The DECOS V was the culmination of our collective studies.

Takaoka: It was a new series with a new concept. Developing the DECOS V controller incorporated improvements for the potential needs

of shipping lines. We designed with the users in mind and kept faith with our three core concepts: easy operation, easy maintenance and easy troubleshooting.

Matsui: At the start of development, I struggled with the performance not meeting the design plan. If a hypothesis was wrong, we went back to the previous stage. If something was improved, we analyzed why so that we could make use of it for the next step.

**Finally, what message would you like to say to the market?**

Nakatani: I hope you thoroughly enjoy Daikin’s core technology.

Takaoka: Please “use” then “feel” the DECOS V. I believe our controller offers performance that will improve our users’ business.

Matsui: I believe you will understand as soon as you try it that the new ZESTIA is indispensable for your business. Let’s make a success story together!

# Daikin reefer history

Over four decades of growth and success

## 1968–2000

Daikin developed a reefer machine which it released in 1968. At first it was sold in Japan as a type to attach to an outdoor unit and an indoor unit separately.

In 1976, Daikin began its global launch, in parallel with the rapid spread of container transportation. And in 1981 the reefer machine shifted from a separated type (Type-LKS)

*In 2001 Daikin developed its current standard model, the LXE10E, which was an epoch-making reefer machine*

to the current end wall type (Type-LKE), which adopted a hot gas defrost method for the first time in the world. Sales exceeded 3,000 units in 1980.

Five years later, Daikin developed the Type-LXE, which improved on the Type-LKE, but forced the company to focus on Japanese shipping lines due to the suddenly strong yen following the Plaza Agreement.

## 2001–2011

In 2001, Daikin developed its current standard model, the LXE10E, which adopted refrigerant R134a and a scroll

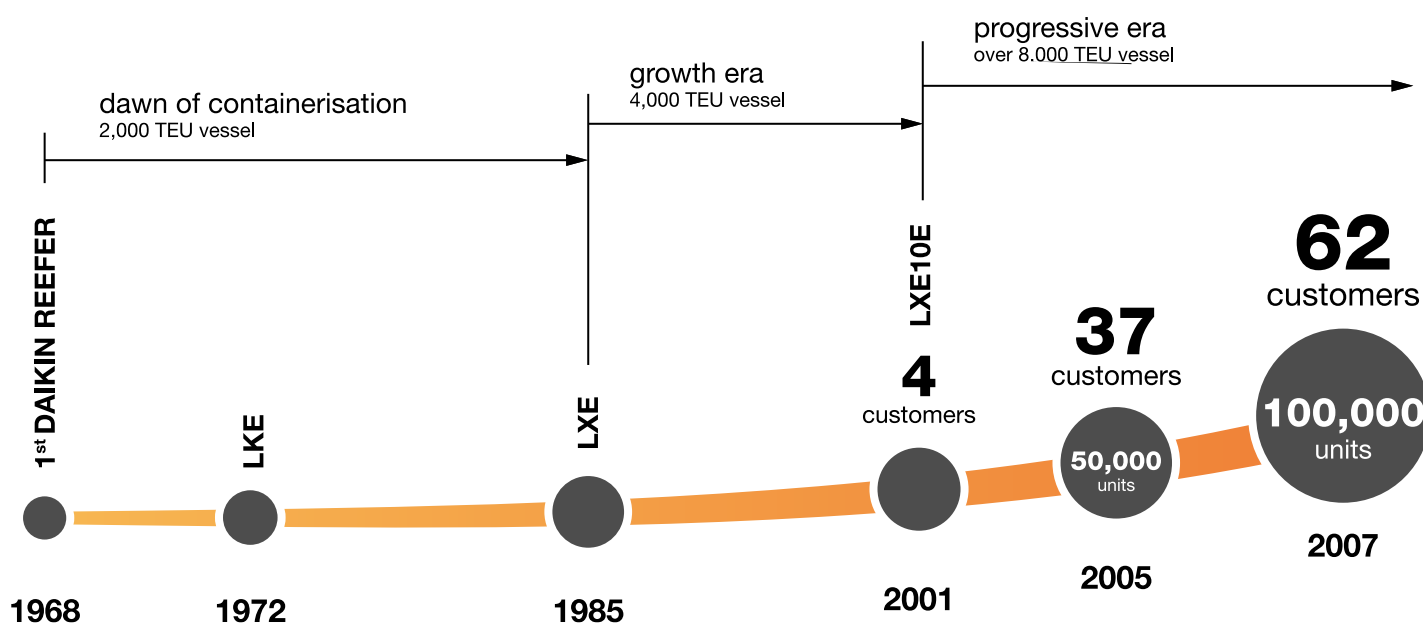
compressor. The LXE10E was launched onto the market as an epoch-making reefer machine. It was equipped with the original hot gas defrost system, dehumidification using a reheat system by refrigerant, and an automatic pump down system.

Daikin began its global re-launch in 2002 with an order from a major European shipping line. In 2004, total sales surpassed 50,000 units. In 2005, the Daikin Temperature Management System (DTMS) was added to the LXE10E, improving its energy-saving performance.

*Daikin has continued to expand its service network and now has 14 regional and satellite parts centres and 318 service offices around the world.*

The total sales number increased steadily, achieving 120,000 in 2007, exceeding 150,000 in 2010 and reaching 160,000 as of September 2011.

The number of customers has also increased drastically from the major Japanese and Asian shipping lines. Daikin's customer base now includes over 160 companies worldwide, including ocean carriers and leasing companies. Daikin has continued to expand its service network and





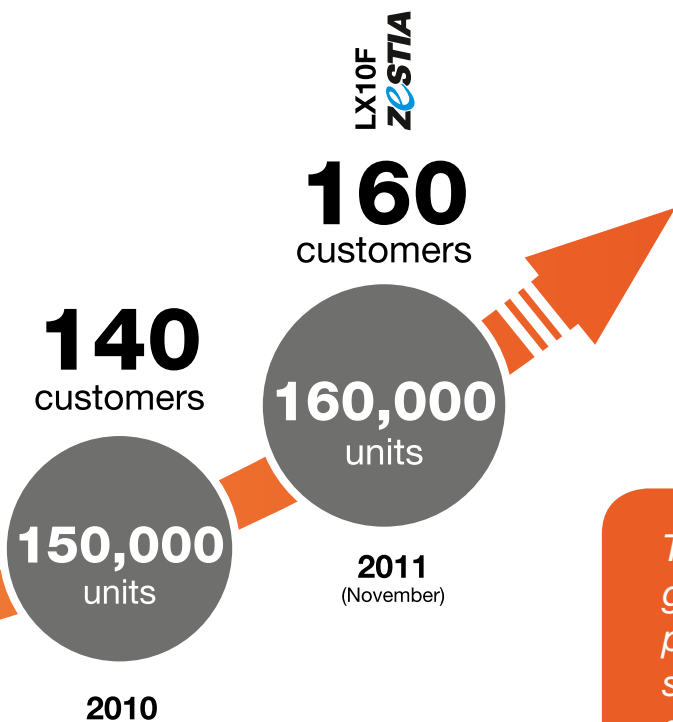
now has 14 regional and satellite parts centres and 318 service offices around the world.

With the expansion of production, Daikin established a factory in Suzhou, China in 2008 and fully transferred production from Japan. The factory in China also enabled shorter delivery times and a lower currency risk.

The LXE10E has seen repeated improvements in the ten years since its release and has maintained high energy-saving performance and reliability. At the same time, Daikin expanded its service network and production system. This has brought deep-rooted Daikin enthusiasts and the spread of the LXE10E globally.

## From now on

Daikin continues to enhance the LXE10E with a focus on meeting customers' expectations and extending sales of the LXE machine. At the same time Daikin's new inverter reefer machine, ZESTIA, offers advanced energy saving with the adoption of DC inverter technology for a premium machine to meet the new needs of customers.



**1994**

LXE10C

**1997**

LXE10CA

R134a  
DECOS3a DECOS3  
Recipro. Comp.  
MV Control, Chilled  
Thermostatic Exp.V  
Hot Gas Defrost



**1998**

LXE10D

R134a  
DECOS3b  
Recipro. Comp.  
MV Control, Chilled  
Electronic Exp.V  
Hot Gas Defrost



**2002**

LXE10E-A

LXE10E-1

R134a  
DECOS3d DECOS3c  
Scroll Comp.  
SMV Control, Chilled  
Electronic Exp.V  
Hot Gas Defrost  
Auto. Pump Down  
On Demand defrost



*The last ten years have seen phenomenal growth for Daikin reefers. We are very proud of our achievement and continue to strive to make our reefers the most energy efficient and reliable in the market.*

# Technology focus

## LCCP in the Zestia Unit

Life Cycle Climate Performance (LCCP) is a key component in Daikin's work to reduce unit power consumption and thereby environmental impact

Life Cycle Climate Performance (LCCP) was first introduced in 2004 at the International Symposium on New Refrigerant and Environmental Technology in Kobe, followed by the Earth Technology Forum in Washington DC. It has since become one of the key metrics for expressing and evaluating the global warming impact of air conditioning and refrigeration technology.

LCCP provides a cradle to grave framework for analysis of energy consumption through the entire lifetime of a refrigeration or air conditioning product, identifying both direct and indirect contributions to climate impact. In the

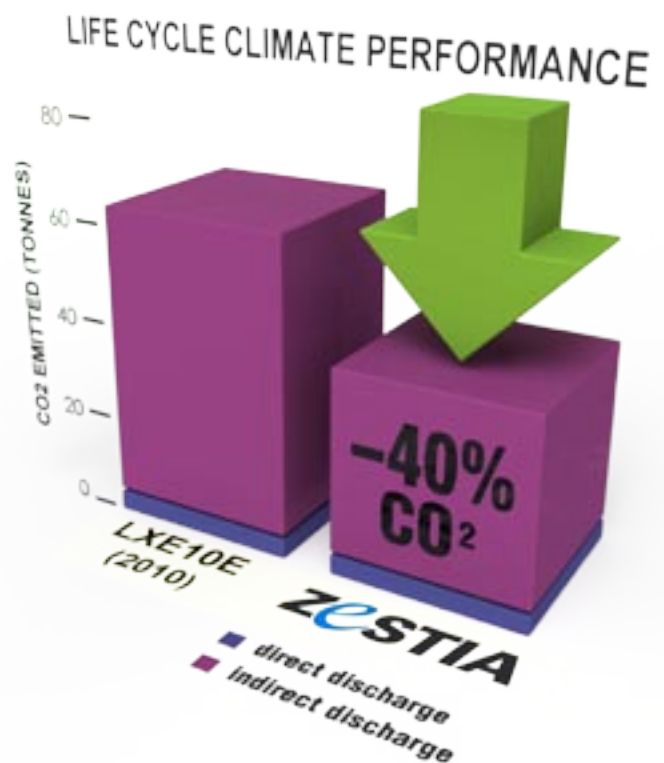
*Thanks to Daikin's inverter technology, the ZESTIA unit discharges an impressive 40% less CO<sub>2</sub> than the LXE10E*

case of container refrigeration machinery, LCCP indicates the kilograms of CO<sub>2</sub> produced, consumed and/or leaked at each stage of the unit's production, operation and final disposal. The two major measurements are direct CO<sub>2</sub> discharge, covering gas leaked or purged to the atmosphere during operation, and indirect CO<sub>2</sub> discharge, which covers energy consumption during operation:

**Direct CO<sub>2</sub> discharge = Refrigerant volume in system x Refrigerant's GWP x Percentage of leaked or purged refrigerant**

**Indirect CO<sub>2</sub> discharge = Power consumption per year (kWh) x 12 years x Conversion to CO<sub>2</sub> kg from kWh**

Direct and indirect discharge figures are added together to give the total LCCP. The higher the figure, the greater the global warming impact.



The above chart shows an LCCP comparison of the ZESTIA and the LXE10E (as of 2010) series. It demonstrates

*LCCP provides a cradle to grave framework for analysis of energy consumption*

a reduction of around 40% on ZESTIA. This is mainly due to the energy efficiency of Daikin's patented DC inverter technology and provides proof that ZESTIA is an environmentally friendly machine.



## The journey to Japan

### 1. Packing the product

The pork is vacuum packed and loaded into cartons, then kept in a cold storage warehouse at the factory until collection.

### 2. The chilled shipment

The cartons are loaded into a cooled 40ft HC reefer container with a temperature setting (set-point) of 1°C. The reefers are taken by trailer to the US West Coast, where they are loaded aboard a container vessel on Pacific services. It is a two-week voyage to Japan.

### 3. The import process

On arrival, the goods are stored in a cold warehouse. The goods go through animal quarantine and food inspection, followed by import declaration and custom clearance. The meat is then delivered to the retailers.

## Market focus

### Chilled pork from the United States

Chilled pork is in high demand as table meat all over the world. It is a high value product worth up to three times more than its frozen equivalent. Japan imports around 750,000 tons of pork, of which 30% is transported with chilled control. Half of this chilled pork comes from the USA, followed by Denmark and Canada.

American pork is imported into Japan using reefer containers on liner services. The voyage takes about two weeks and Daikin reefers are

*We have gained an excellent reputation for our highly reliable machines*

instrumental in keeping the product fresh. We have gained an excellent reputation for our highly reliable machines with precise temperature control, which are ideally suited for this valued cargo.

The pork is shipped in chilled mode and carried into Japan with low-temperature ripening. This maintains the high quality of the meat, and allows it to tenderise and develop a full flavour.

## Customer focus

### MOL take delivery of the first of our new ZESTIA machines

Daikin is pleased to announce that we will deliver the very first of our new ZESTIA machines with inverter technology to Mitsui OSK Lines (MOL) under a long term lease by Cronos Container Lines.

MOL are one of the world's leading shipping lines and have an extensive liner network to provide a global service to their customers. MOL continue to expand their vessel and container fleets in order to grow their container liner business. They also have an environmental strategy and are keen to satisfy the customer's needs with a lower environmental burden.

A representative of MOL says, "We are very satisfied with the energy-saving performance of Daikin's new machine, which meets our environmentally friendly business needs. In addition, the new machine has various functions that provide ease of operation and maintenance."



**Leading shipping line MOL will be the first recipient of Daikin's energy-efficient ZESTIA, with inverter technology.**

# Customer focus

## New business from COSCO and Beacon, China Shipping (CSCL) and Cronos

**W**e are very pleased to announce that we have received our first order from Beijing-headquartered COSCO, one of the world's largest shipping lines.

COSCO Container Lines commented: "Daikin, as one of the industry leaders, has built up their own reputation in the market over the past few years with reliable products and good service.

"We are now very glad to use Daikin reefer machines and do believe that Daikin reefer will bring a great contribution to our business."

"Beacon Intermodal Leasing, LLC considers Daikin a strategic supplier of

refrigerated machinery. We appreciate the performance, quality and reliability of the Daikin technology and the company's strong sales and after-market support," said Jeff Gannon, President of Beacon Intermodal Leasing, LLC.

"COSCO's decision to accept Daikin machinery on the recently concluded lease transaction with Beacon illustrates the growing market acceptance of Daikin machinery by the global liner industry. We look forward to continuing to expand our relationship with Daikin into the future," added Mr Gannon.

Mr Tsutsumi, VP of Daikin Reefer Division, said: "Daikin sincerely appreciates the cooperation and continuous support received from Beacon since it entered the reefer market. Daikin will continue to improve in all aspects for the satisfaction of our customers and the industry."



**D**aikin is honoured to have received a repeat order from China Shipping (CSCL)! "We have monitored the performance of Daikin units for a long time and evaluated their production facility in Suzhou," commented a spokesperson for China Shipping HQ.

"We finally decided to take Daikin units into our fleet in 2010, and after one year of operation no malfunctions were reported. Because we are quite satisfied with those units and appreciate

their perfect presales and after sales service provided to CSCL, we took on more Daikin units in 2011.

"We hope Daikin will continue to maintain such high standards in its products and we look forward to having more opportunities to cooperate with each other."

Daikin continue to meet the needs of our client and strive to provide the best solutions for their reefer business.

**A**fter many years of solely using a competitor's machine, the management at leasing company Cronos decided that using Daikin as a second vendor would help to expand their reefer market share.

Founded in 1978, The Cronos Group is one of the largest container owners worldwide and the industry leader in specialized container equipment. Cronos leases, designs and sells intermodal equipment to over 400



customers. With a network of 20 offices in 18 countries, Cronos offers a diverse container fleet, together with the industry's most advanced IT and operations platform.

"All of us at Daikin are very excited to have Cronos as our customer," states Mr Shohei Tsutsumi, VP of Daikin Reefer Division. "It is an important milestone to add such a long-established leasing company to our customer base. We look forward to building a strong relationship with Cronos."



Touch & Feel seminars such as this New Jersey event are helping to grow Daikin's secondhand market.

## Secondhand market

# T&F seminars

## Daikin promotes the resale value of its units in New Jersey

This September, Daikin hosted a secondhand Touch & Feel Seminar in New Jersey, USA. Guests from 16 leasing companies and secondhand dealers attended. The seminar was in two parts. The first session was an indoor presentation, which covered Daikin and Daikin reefers, sharing on the reefer market and the unique features of Daikin reefer machines. The second session was outdoors, with a hands-on demonstration of an actual Daikin machine.

We received excellent feedback from attendees. In particular, positive comments were made about:

- The reliability of Daikin in-house technologies
- The continuous expansion of our Global Service Network
- Daikin's ever-growing customer base and sales
- The unique features of Daikin machines, including hot-gas defrost and automatic pump down

We also received comments that will help us to plan our future growth. Customer feedback is extremely important and helps us to keep improving, as a creative manufacturer in the marketplace.

**Daikin recognizes the importance of the secondhand reefer market. We have been running secondhand T&F seminars since 2009, in Singapore, Oakland (USA), Rotterdam, St Petersburg, Moscow, Miami, Qingdao and Sao Paulo. The sessions have been well received and have helped to boost secondhand sales. We would like to share the positive feedback received from one of our customers in the USA.**

"Until recently we had always tried to buy from only the biggest reefer maker for our sales and rental fleet. The secondhand market has remained strong, so we started to seek other reefer machines. Attending the T&F in Oakland last year motivated us to buy Daikin units.

"We have found the Daikin units to be very reliable. Our service people find them easy to repair if the parts can be found quickly, so customers are not inconvenienced if a unit breaks down. It is no problem selling Daikin unit to end-users here in California.

*We have found the Daikin units to be very reliable and easy to repair*

"The most important aspect is the unit's reliability. The Daikins we bought were in good operating condition. What's more, the Daikin unit is quieter than other makers' and appears to be less costly to operate from an electricity consumption standpoint.

"We tried another maker, but our experience with them was terrible due to poor service, unreliability and expensive parts. We look forward to incorporating the used Daikin machines into our sales and rental inventory. We are happy to work with Daikin for mutual growth and for Daikin's presence in the secondhand market here in California!"

Comments from Michael McCurley, general manager of COLDBOX, a leading lessor for the US cold storage in California.

# Earthquake focus

## Daikin supports Japan's recovery from Tohoku earthquake

**O**n 11 March 2011, Japan was hit by one of the most powerful earthquakes in recorded history. Daikin has worked to support Japan, in particular with the energy shortage due to the closure of nuclear power plants. Japan has been strongly supported by friends from all around the world and thanks to them the recovery is making progress, albeit slowly.

*The fisheries sector has reopened thanks to donations of reefer containers by Japanese shipping lines*

The Tohoku Earthquake caused a tsunami, which caused a vast amount of damage in the country's northeastern coastal area. The Fukushima nuclear power plant was seriously affected and all nuclear power plants in Japan were closed in order to carry out emergency inspections.

As a result of this, the government called for a 15% reduction in electricity usage for both companies and households. In response, Daikin has formed a dedicated team and control centre focused on providing support by reducing the power consumption of air-conditioning units for new and existing customers.

The damage caused by the tsunami was especially serious in the Tohoku area in northeastern Japan, where the main industry is fisheries. The fisheries sector has now reopened thanks to the donations of secondhand reefer containers from Japanese shipping lines. The earthquake

disaster has helped to make the way we consume energy a major social issue. This issue affects not only Japan, but also the rest of the world. As a manufacturer of air conditioners, which use a lot of electricity, we strongly believe that we have an important role to play in the process of reducing consumption.

Daikin will continue to develop its energy-saving business all over the world, with initiatives such as developing air conditioners with power-saving functions.

**A secondhand Daikin reefer is donated by MOL to help Japan's fisheries.**



## Daikin people

**Jih-Tarng Lin**  
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Jih-Tarng Lin joined Daikin in April 2011 as a service manager and his responsibility is after-sales service in the Taiwan region.

