Carrier

Selected Product Brochure
Philippine
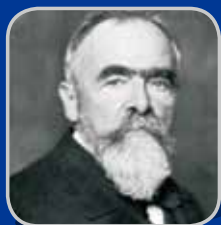
Carrier Company

Carrier is a world leader in heating, air-conditioning and refrigeration solutions.

Haier Carrier

Haier Carrier Refrigeration Equipment Co., Ltd. (Qingdao) was a joint venture established by Haier Group and US Carrier in 2001. After more than ten years of development, it has become a world-class facility. Its products include supermarket display cabinets (more than 1,000 specifications), compressor units (scroll, piston and screw), and heat exchangers (air-cooled condenser and air cooler). It can provide customers with whole sets of freezing and refrigerating solutions. Relying on the support of Carrier's R&D centers in Mainz, Germany and Shanghai, China, the company now has a nationally recognized laboratory, and the products and system technologies of Haier Carrier are leading in the world. The company is committed to providing advanced energy-saving systems, including carbon dioxide systems, for customers in the Asia Pacific region.

In the past ten years, relying on abundant resources of the parent company, Haier Carrier has become a world-class facility that owns the ISO9001 certification and the ACE certification of United Technologies (Carrier's parent). With strong R&D strength, we are able to provide world-class freezing and refrigerating integrated solutions such as D2D hot gas defrosting (national patent), Ground Water (GSHP technology dedicated for freezing and refrigerating purposes), HybridCO2OL (carbon dioxide cascade refrigeration technology), and CO2OLtec (carbon dioxide transcritical refrigeration technology).

Carrier new intelligent production base

Carrier is committed to innovative revolution and intelligent manufacturing. Since December 18, 2018, its new intelligent production base has been relocated to No. 3734, Tuanjie Road, Huangdao District, Qingdao.

The area of the new factory has been greatly expanded, and more newly upgraded production lines have been equipped, which has increased the production capacity by about 45%; the laboratories have been comprehensively upgraded and the number has doubled. The laboratory has a complete set of experimental verification system and experimental equipment. At present, there are 3 double-station commercial display cabinet laboratories, which adopt domestic or international advanced equipment; and product parameters meet or exceed national standards, so as to protect food safety; An 24-hour multi-functional testing laboratory for air-cooled, water-cooled condensing units, as well as air coolers and condensers, can be used for timely detection to ensure energy-saving and reliable products, responsible for the end user.

Certificate of honor and qualification certificates

CHINASHOP Golden Wings

CHINASHOP Golden Wings-
Practical Fresh Food 3rd Prize

CHINASHOP Golden Wings-
Effective Stop-loss in Supply
Chain 2nd Place

CHINASHOP Golden Wings-
2018 Most Market-potential
Products Of the Year

CHINASHOP Golden Wings-
The Best Partner Award
Lawson East China 1000 Stores
Achievement Award

2017-2018 Golden Cold Chain Award
- in China's Cold Chain Industry
Top Ten Refrigeration and Thermal Insulation Equipment Suppliers
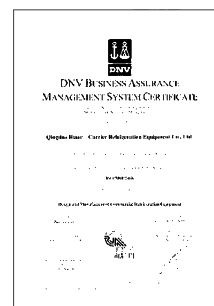

Environmental Management System
Certificate

Utility Model Patent Certificate

DNV Business Assurance
Management System Certificate

GCCA Credit Certification

National Industrial Product Production License

History of Innovation

In Carrier, innovation is our philosophy all the time
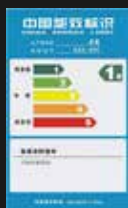

The company was established

It started its export business

Linde Refrigeration group was acquired by Carrier Corp
It started to cooperate with MNC chains

2001

2003

2004

EEL Energy Efficiency Certification

GCCA Credit Certification

New supermarket & C-store products were launched

First batch of stores with Cascade CO_2 opened

Localized CO_2 units product line went into operation

2014

2016

Former Linde Plant merged with Carrier

2008

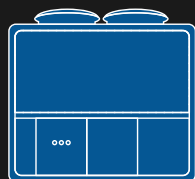
The first store with CO_2 pumping system opened

2012

DC-inverter condensing unit 1.5-46HP

2017

New factory in China went into operation
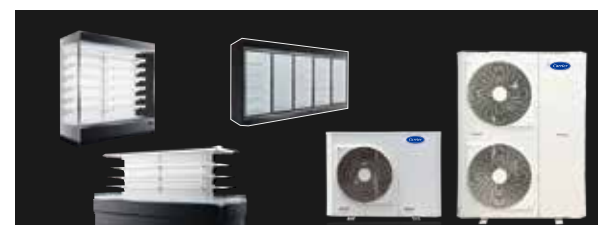
2018

Frost-free DC frequency technology

2019

Authoritative Certification

EEL Energy Efficiency Label Compulsory Certification

All new products are

Energy Saving Products

Over 90% registered models are of EEL 3 or above. Carrier has the largest number of product certifications in the industry. *

- It became compulsory in September 2013 supervised by Quality and Technology Supervision Bureau. And the remote cases are covered. (Plug-in cases are also covered from 2018)
- All products for sales are of EEL 5 at least
- It must be labeled on all cabinets
- All products registered by Carrier can be found on the website below and all new products are energy saving.

Website of China Energy Label: http://energylabel.gov.cn/

All Carrier products can be found on the website above

* The data is as of 2017

Carrier is the

Only One Certified by

Commercial Refrigeration Enterprise

- The scope of certification covers cabinets and condensing units, ensuring the right temperature, food safety and advantage of energy efficiency
- Certificated by Hefei General Machinery Product Certification Co., Ltd., a certification authority in refrigeration industry
- Cabinet remote type and plug-in open type

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Proprietary Technology

Carrier Squeezed Multi-layer Air Curtain

No matter what type of air curtain is adopted, the fundamental purpose is to save energy by isolating the air inside and outside the cabinets and reducing heat and mass transfer through the air curtains.
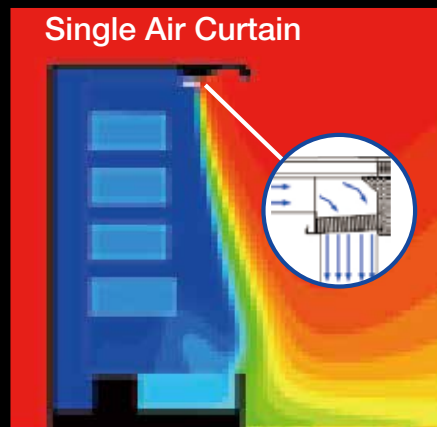
Single Speed ≤ Dual Speed ≤ Variable Speed

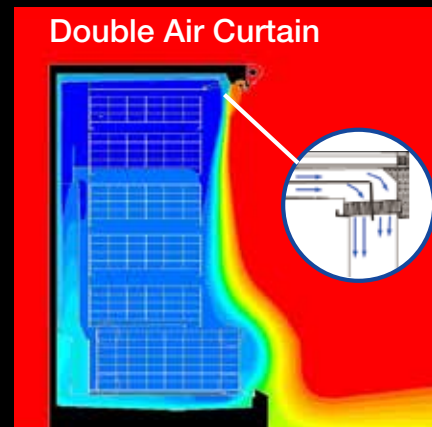### Carrier's Squeezed Multi-layer Air Curtain Design, more efficient and energy saving!

Temperature

High

Low

Single Air Curtain

Double Air Curtain

Carrier Squeezed Multi-layer Air Curtain
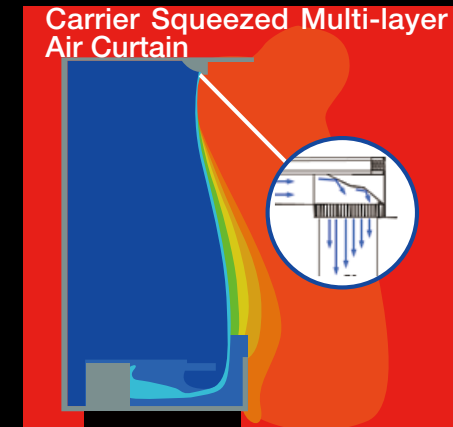
Simple and not optimized air curtain design, with much cool air overflow.

Double air curtain relies on physical segmentation (equal to dual speed) and is more energy-efficient than single air curtain (ordinary). However, we can see on the image above that there is still obvious cool air overflow.

Squeezed Multi-layer Air Curtain is developed by the Carrier R&D team after countless CFD simulations and experiments. By optimizing the air speed and direction (similar to continuously variable) at the outlet of the honeycomb, maximally reduce the cold loss of the air curtain. As shown in the image above, with little cool air overflow, the air curtain is more efficient.

In strict accordance with GBT21001 (ISO23953,IDT), Carrier conducts temperature tests and temperature labels, ensuring the temperature performance of the cabinets

Temperature performance is the basic performance index of cabinets and is also the primary consideration of the users in cabinet selection. According to the temperature ratings in GBT21001, there are different temperature ranges for storage of different food:

Temperature Class	Temperature Range*	Food to Store
L1	-15~-18℃	Frozen food, ice creams
M1	-1~5℃	Fresh meat
M2	-1~7℃	Dairy food, milk, fruits, etc
H1	1~10℃	Soft drinks, fruits & vegetable, etc.

* Temperature range refers to the center temperature of the various Test packages (equal to the center temperature of food) in the cabinets in accordance with GBT21001. Both the maximum and minimum temperature, including the normal refrigeration and defrost cycles, must be within the temperature range.

Temperature performance for good display cabinet should be:

√ Actual temperature is in the range of rated temperature

√ Temperature range must cover the defrosting cycles

√ Little temperature fluctuation in the whole process
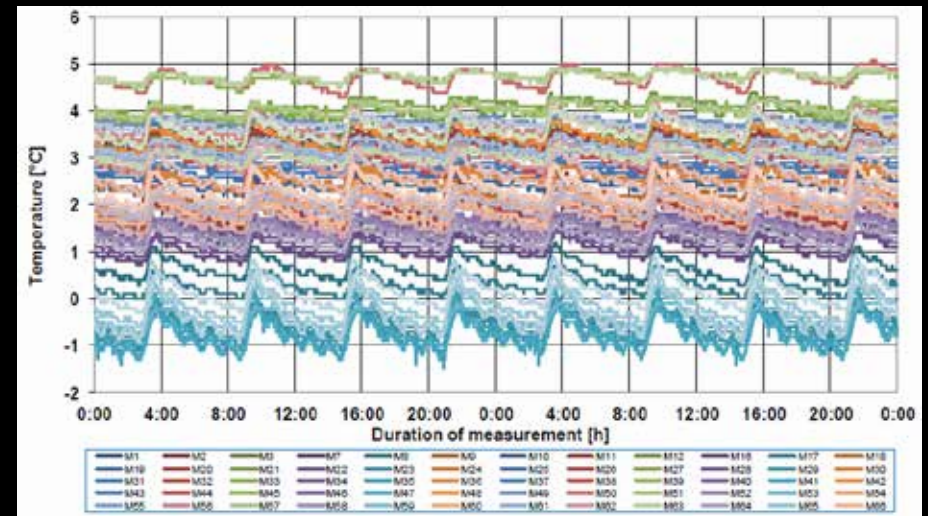
√ More even temperature distribution

Mechanical arm to open and close the doors

Test packages (M-Package) are used to simulate real food and the temperature point is in the center of the package, closer to the center temperature of the real food.
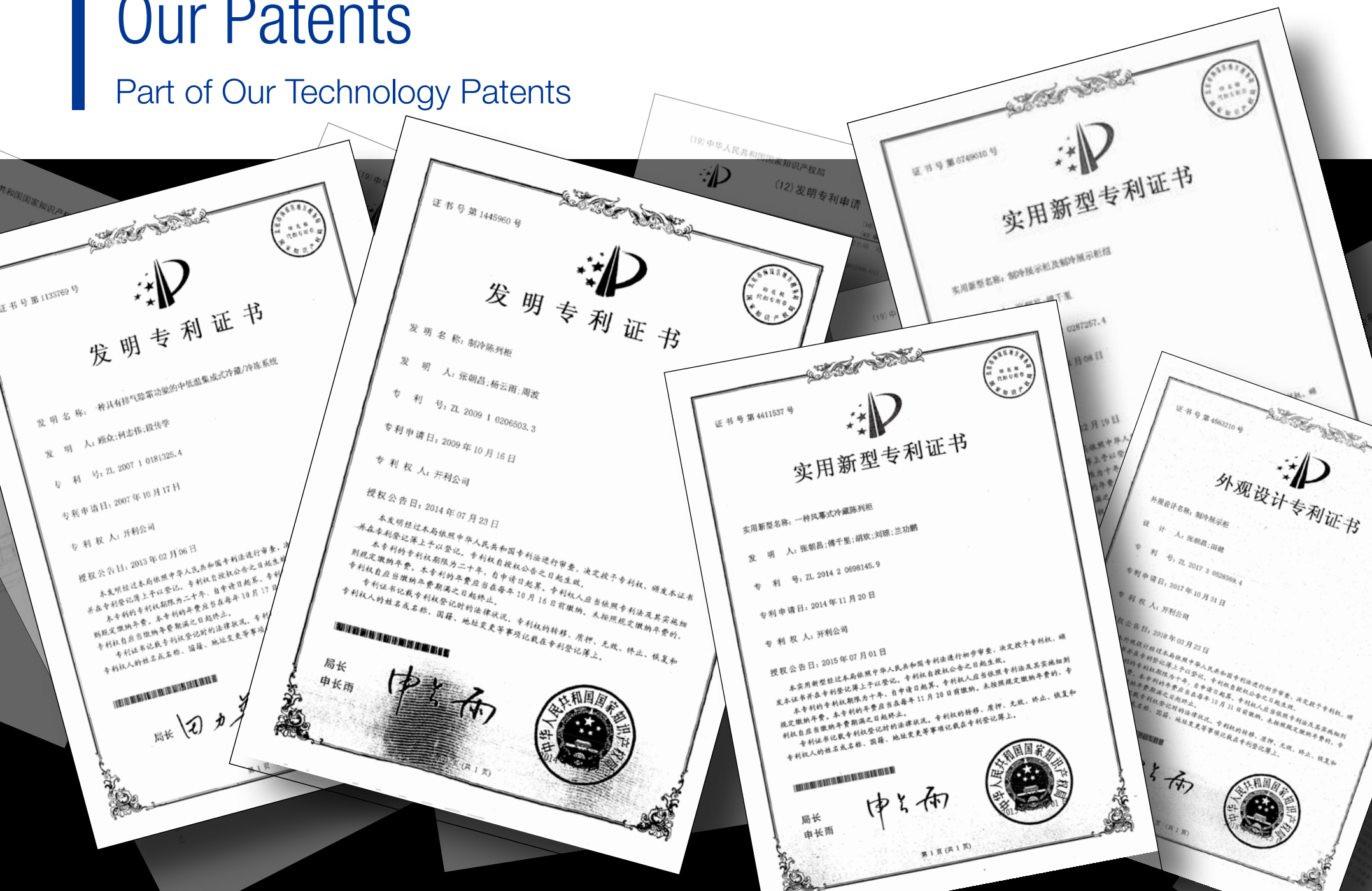
Temperature probes

Temperature Profile of Carrier E6 Multidecks

Our Patents

Part of Our Technology Patents

Carrier has obtained nearly 100 patents for its core technologies in the field of commercial refrigeration. These patents are applied in Europe, the US, China and other countries and regions in the world, making Carrier ahead in the industry in terms of depth and width.

Integrated System Method

D2D

Refrigeration Display Case

Refrigeration Circuit, Gas-Liquid Separator and Heating And Cooling System

a Refrigerated Display Case with Auxiliary Air Duct,

Icf with Air Curtain

Shelf with Light Guiding Foil

Hot Gas Defrosting Method

Frame and Refrigerating Apparatus

Even Cleaning a Condenser

Design Application - a New Cabinet with Front Total Transparent and Sliding Glass /Filed

a New Glass Door Freezer with Bottom Sliding Baskets/Granted

Shelf with Illumination

Bactericidal Surface Protection

Pct/Ep2005/001785 Refrigeration Circuit

Shelf with Illumination

Oil Balancing Control for Compressors Working in Parallel

Siphon for Refrigerated Cabinet

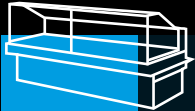Pct/Ep2005/007259 Refrigerated Shelf Cabinet

Refrigerated Case

Oil Compensation in a Refrigeration Circuit

Oil Accumulation in Co_2 Refrigeration Ejector Cycles

Compressor Oil Distribution Device in Systems with Different Crankcase Pressure

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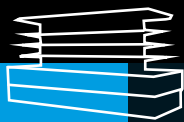# Danaos

Rectangular Service Counter

Technical Data

	Product Model	Product Code	Dimension (mm)	Temp (°C)	TDA (m²)	Net Volume (m³)
Danaos 60Hz Plug-in Open	Danaos 188 87 P S X	BG1QBS00000	1975*1160*880	-1~5	1.70	0.28
	Danaos 250 87 P S X	BG1QBT00000	2600*1160*880	-1~5	2.25	0.38

Product Features

☐ Full sized product lines, applicable to stores with various layouts

☐ Modern Appearance, for better product display effect

☐ Unibody cabinet, high compressive strength and better thermal insulation properties

☐ Temperature optimization, suitable for storage of various daily products and meat

☐ Bigger capacity for bigger volume per unit of area

☐ Rectangular glass design, for bigger display area

☐ Top Squeezed Multi-layer Air Curtain, multiple decks for food storage and bigger capacity

* All comparisons are based on the product performances of last generation.

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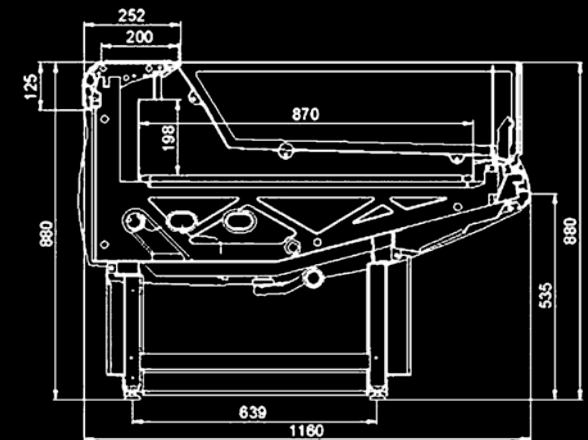
LD

Plug-in Island

Technical Data

	Model	Dimensions /mm	Temperature Range/℃	Net Volume/m^3	Display Area/m^2	Net Weight /kg	Frequency (Hz)
LD Island Case	AIW0.3G	1570*1065*915	≤-15/0~5	0.27	1.20	160	60Hz
	AIW0.4G	2065* 1065*915	≤-15/0~5	0.29	1.58	200	60Hz
	AIW0.5G	2565~1065*915	≤ -15/0~5	0.36	2.00	260	60Hz

Product Features

- ☐ Dual temperature design, switch between MT and LT at will and flexible application

- ☐ Plug-in island case, plug and play, flexible deployment

- ☐ Narrow cabinets to save space for markets

- ☐ Automatic defrost, saving time and efforts

- ☐ With universal wheels at the bottom, easy to move

* All comparisons are based on the product performances of last generation.
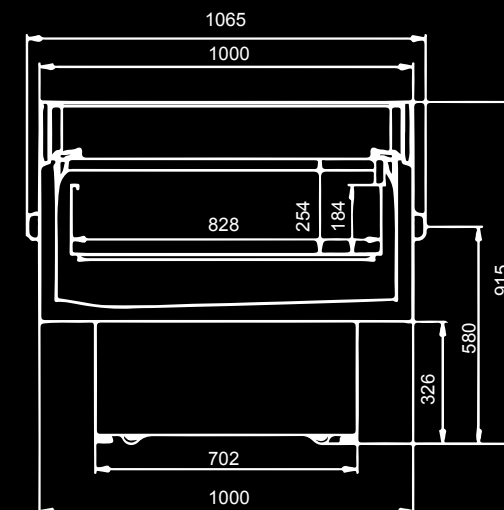
Adventer

Integral Chest Freezer (Plug In)

+10% Storage Capacity

+10% Display Area

-15% Energy Consumption

Improved Shopping Environment

Product Features

- [ ] Up-down sliding glass door making it easy for customer to access

- [ ] Arc glass to display more goods

- [ ] Excellent temperature performance

- [ ] Hot gas defrosting

- [ ] Optional non-refrigeration shelves, to make better use of the space

- [ ] Automatic defrosting at night, no affecting the shopping process

Adventer
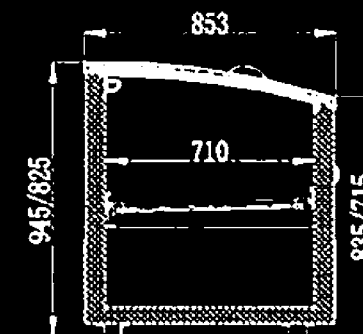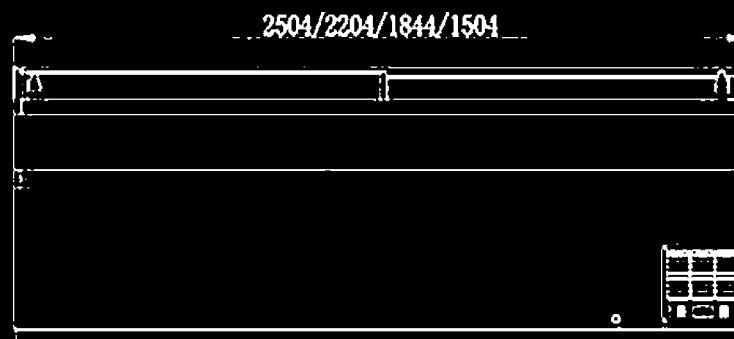
Integral Chest Freezer (Plug In)

Technical Data

Cabinet	Model	Dimensions /mm	Temperature Range/℃	Net Volume/m3	Display Area/m2	Net Weight /kg	Frequency (Hz)
2500 Run Case	LD-ICF250808AX	2504*853*945	≤-18	0.80	1.42	193	60
2200 Run Case	LD-ICF220808AX	2204*853*945	≤-18	0.69	1.26	160	60
1500 Run Case	LD-ICF150808AX	1504*853*945	≤-18	0.43	0.82	138	60
1840 End Case	LD-ICF180807AX	1844*853*825	≤-18	0.45	1.03	141	60

Product Features

☐ Push-pull up and down glass door

☐ Excellent temperature performance, stable and uniform

☐ Hot gas defrosting, energy saving and environmental protection

☐ Automatic defrosting at night, without affecting the customer use

☐ High load line ≤ - 18 ℃ 550mm, ≤ -20℃ 450mm

* All comparisons are based on the product performances of last generation.

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Adventer Series

Crown Case (Remote/Plug-in)

Technical Data

Model	Coding	Demention (mm)	Operating temp / ℃	Net volume (L)	Display area / m^2
CCSP1410X	BG1MSU00000	1413*1067*1472	1-10	495	2.90

Product Features

☐ 360 degrees display without blocked shopping channels;

☐ Fully transparent glass shelf with double-illuminating LED;

☐ Stainless steel grille and handrail;

☐ Enhanced ventilation design at corners for well-distributed temperature;

☐ Higher evaporating temperature (-5℃), more energy-efficient and environmental friendly.

Plug-in
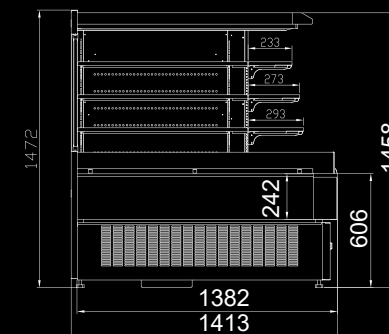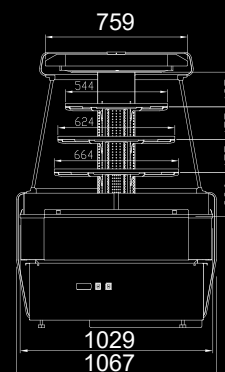
* All comparisons are based on the product performances of last generation.

Adventer Series

Ice Cream Freezer (Plug-in)

Excellent Temperature Performance

+10% Display Area

-20% Energy Consumption

Give Attention to Display and Storage

Product Features

☐ Up-down sliding glass doors at both sides convenient for simultaneous shopping;

☐ Optional bearing platform at the top convenient for putting other promoted goods or acting as a compact showcase;

☐ Luxury front glass window for improving the display effect;

☐ Be adaptable to high ambient temperature such as suitable for a working condition of 32℃ and 70% relative humidity in southern areas.
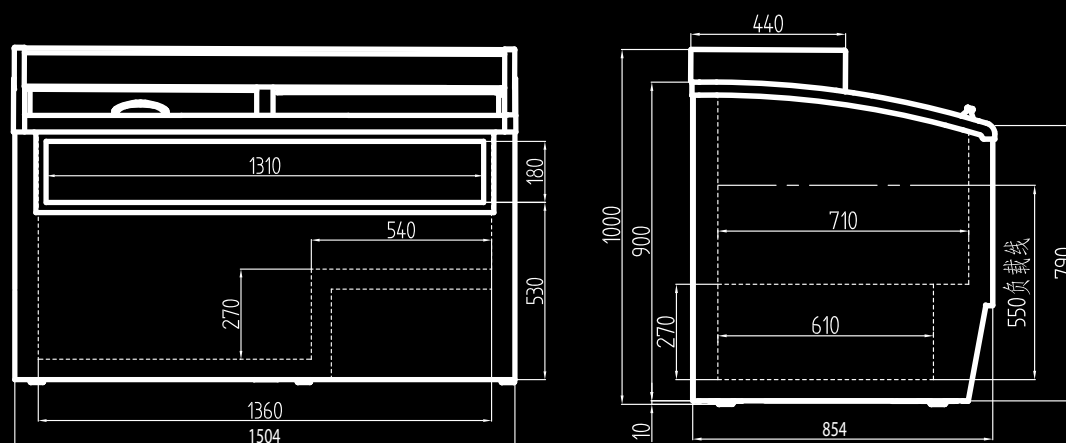
Adventer Series

Ice Cream Freezer (Plug-in)

Technical Data

Model	Coding	Dimensions/mm (L x W x H)	Operating Temperature/°C	Net volume (L)	Display Area/m^2	Power/Ftrquency V/HZ
CIF15GX	BG1MLD00000	1504*854*1000	<-18	405	0.53	220/60

* All comparisons are based on the product performances of last generation.

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LD Series

LD Multideck

	Mature Product		Reliable Quality		Stable Performance		Consistent Appearance

Technical Data

Product Code	Model	Dimension(mm)	Temp.(°C)	Volume(L)	Display Area(m^2)	Voltage(V)/
BG1MXL00000	LD09205MEX	997*805*1910	2~7	430	1.3	220/60
BG1MXM00000	LD12205MEX	1310*805*1910	2~7	580	1.67	220/60
BG1MXN00000	LD18205MEX	1935*805*1910	2~7	870	2.61	220/60
BG1MXP00000	LD20205MEX	2560*805*1910	2~7	1160	3.48	220/60
BG1MXQ00000	LD12205MBX	1350*815*1910	2~7	690	1.09	220/60
BG1MXR00000	LD18205MBX	1935*815*1910	2~7	1040	1.63	220/60
BG1MXS00000	LD12205LBX	1350x815x1000	≤-18	690	1.09	220/60

785
1340
1910
470
780
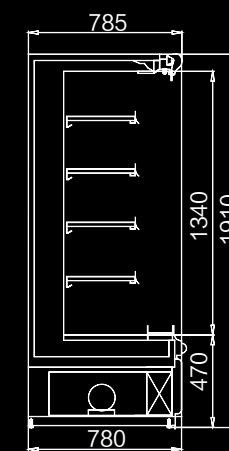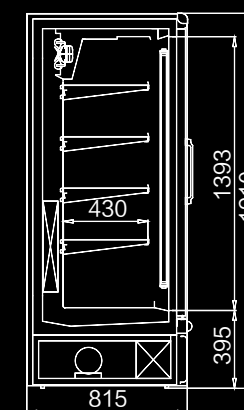
LD open type, plug-in

Product Features

☐ A lineup of products with selectable remote/plug-in and selectable open/ glass door;

☐ 2~7℃ usage temperature with well-distributed temperature;

☐ Mature product with reliable performance;

☐ Consistent appearance of chiler/freezer to improve overall display effect of stores.

1393
1910
430
395
815

LD Glass door, plug-in

* All comparisons are based on the product performances of last generation.

REDUCE YOUR CARBON FOOTPRINT AND ENERGY COSTS. NATURALLY.

Let's Work Together!

http://en.haiercarrier.com/