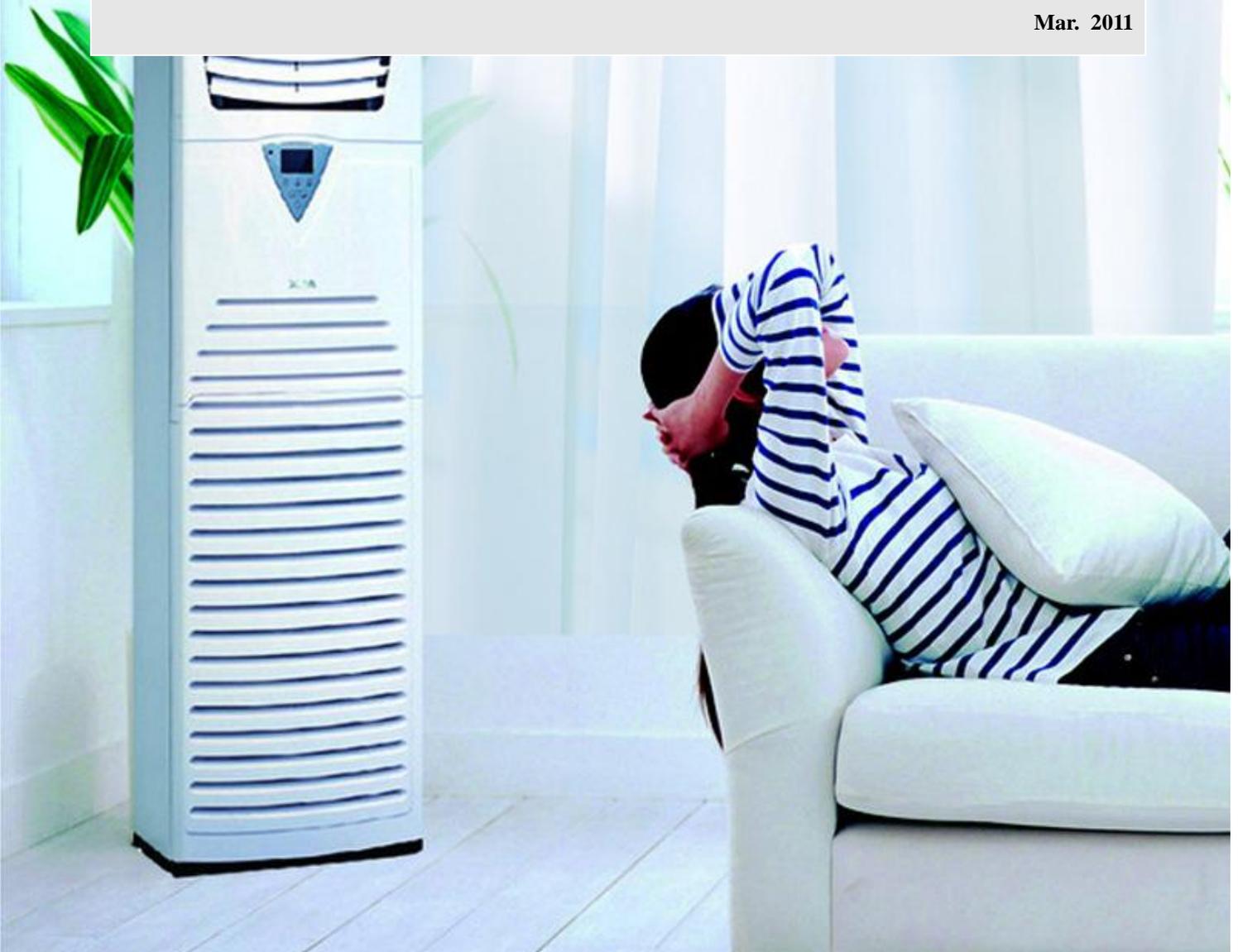


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## **China Inverter Air Conditioner Industry Outlook Report, 2010-2015**

Mar. 2011



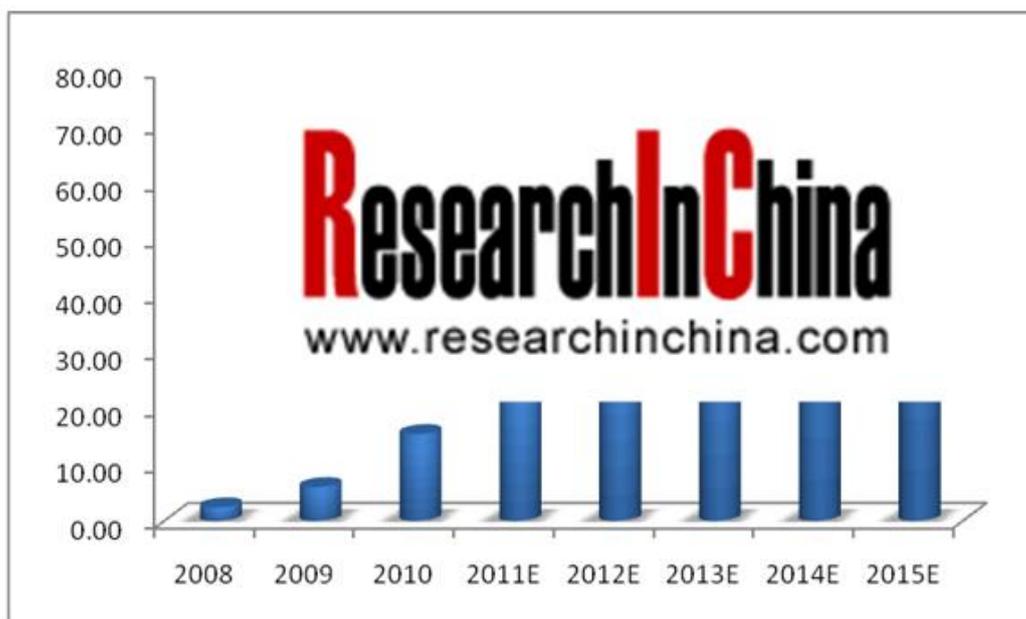
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## 2. Development of Inverter Air Conditioner Industry of China

### 2.1 Sales

In the second half of 2010, the government’s adjustment of policies for the air conditioning industry became an important turning point of the domestic air conditioning market. Domestic inverter air conditioner market ushered in rapid development. The enhancement of the energy efficiency standards for fixed frequency air conditioner and the reduction of the subsidies for efficient energy-saving fixed frequency air conditioner have reduced the price advantages of efficient fixed frequency air conditioner over inverter air conditioner. The sales volume of inverter air conditioner with more advantageous performance began to grow significantly. By October 2010, the retail volume of inverter air conditioner had exceeded \*\*\*% of the domestic air conditioner market. In consequence, it’s expected that the share of inverter air conditioner in the domestic air conditioner market will exceed \*\*\*\*% in 2011, and reach \*\*\*\*% in 2015. The domestic inverter air conditioner market capacity will exceed \*\*\* units in the next five years.

***Retail Volume of Inverter Air Conditioner in China, 2008-2015E (Unit: mln)***



Source: Monitoring on 3986 Stores in 436 Cities Conducted by China Market Monitor; OKOKOK

### 2.1.1 Market Structure

The market structure shows that, inverter air conditioner products perform better in the domestic wall-mounted air conditioner market than in the cabinet air conditioner market. According to the latest market research data, in 2010, the share of inverter air conditioner in the domestic wall-mounted air conditioner retail volume exceeded \*\*%, and was only \*\*% in the domestic cabinet air conditioner retail volume, mainly due to the fact that: in the wall-mounted air conditioner market, the price gap between inverter air conditioner and fixed frequency air conditioner is smaller, and inverter air conditioner has more advantages in performance.

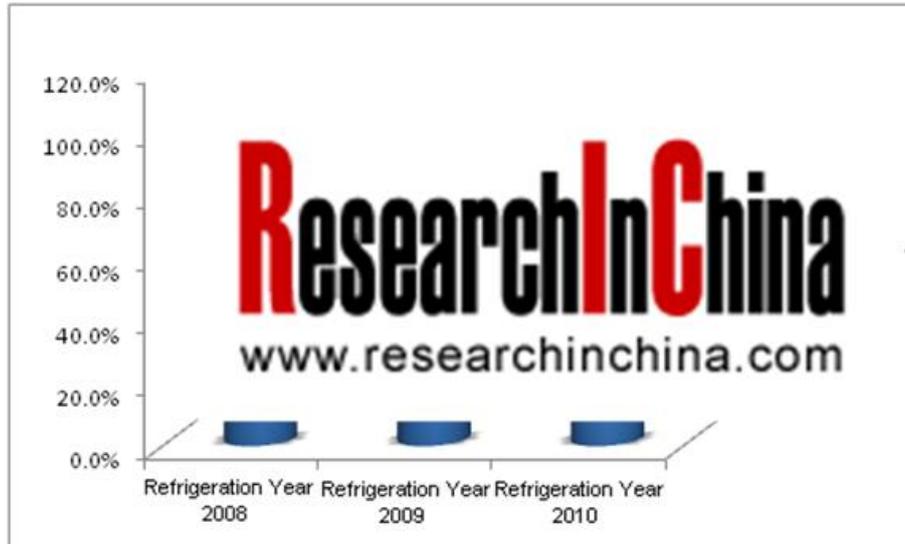
**Retail Volume Change of China's Air Conditioner Market by Product, 2008-2010**

		2008	2009	2010,1-5
Wall-mounted	Small 1HP			
	1HP			
	Small 1.5HP			
	1.5HP			
	Small 2HP			
	2HP and above			
Cabinet	Small 2HP			
	2HP			
	2.5HP			
	3HP			
	Small 4HP			
	4HP and above			

Source: Monitoring on 3986 Stores in 436 Cities Conducted by China Market Monitor; OKOKOK

Freon-free has always been a trend of product upgrading in the air conditioning industry. In 2010, Haier took the lead to launch A+ freon-free inverter air-conditioner products in the domestic air conditioning industry, and organized Freon-free Inverter Air Conditioner Industry Alliance. As a consequence, freon-free inverter air conditioner increased its share in the domestic market significantly to \*\*\*% in 2010, a substantial increase of \*\*\* percentage points over 2009.

**Retail Volume Structure of China's Inverter Air Conditioner Market by Product, 2008-2010**



Source: Monitoring on 3986 Stores in 436 Cities Conducted by China Market Monitor; OKOKOK

Note: The "refrigeration year" here refers to the period from last August to this July.

**2.1.2 Market Penetration**

The market penetration shows that, affected by consumers' spending power, channel promotion of air conditioner manufacturers and other factors, inverter air conditioner penetrated deeper in the first-tier and second-tier markets than in the third-tier and fourth-tier markets. According to the "Air Conditioner Market Whitepaper 2011" released by Suning, the sales proportion of inverter air conditioner is expected to reach \*\*\*% in the first-tier and second-tier markets, and exceed \*\*\*% in the third-tier and fourth-tier markets in 2011.

In 2010, while the sales volume of inverter air conditioner was enhancing nationwide, the penetration was quite different in various regions. According to the statistics in January-May 2010, Anhui was the market with the highest penetration rate, where inverter air conditioner occupied \*\*\*% of the retail volume, while Inner Mongolia was the market with the lowest penetration rate, where inverter air conditioner only occupied \*\*\* % of the retail volume.

## 2.2 Competition in Chinese Inverter Air conditioner Market

In terms of the retailing sales of inverter air conditioner in domestic market, Midea, Gree, Haier and Hisense are classified as the first group, while Chigo, Aux, Kelon and other domestic second-tier brands as well as Japanese brands like Daikin are defined in the second group. In 2010, Midea, Gree and Haier respectively witnessed their market share of \*\*, \*\* and \*\* percentage points higher than those in 2009, while Hisense, although ranking in the first group as the inverter air conditioner manufacturer, has suffered decline in its market share for two consecutive years.

Amid the competition in domestic inverter air conditioner market, besides the price, the mainstream manufacturers also have outstanding performance in the technology upgrade and industry standard establishment for the inverter air conditioners. In 2010, with the leading edges in Freon-free inverter air conditioner, Haier beat Hisense and ranked among the top three by the inverter air-conditioner sales at home.

### ***Retailing Sales of Chinese Inverter Air Conditioner Market (by Brand), 2008-2010***

	2008	2009	2010
Midea			
Gree			
Haier			
Hisense			
Daikin			
Mitsubishi			
Aux			
Panasonic			
Kelon			
Chigo			
Others			

Source: 3986 outlets in 436 cities, China Market Monitor Co., Ltd.; ResearchInChina

### 2.3 Inverter Air Conditioner Price in Chinese Market

The price is a major factor limiting the inverter air conditioner to spread quickly, since 2009, under the influence of the policy "Energy Saving for Benefiting People", the high-performance constant frequency air-conditioner has showed a constant cut in the price, in contrast, the inverter air conditioner kept relatively stable, take the 1.5HP wall-hanging air conditioner as example, its price was reduced only by \*\*\* sequentially over the past 15 months. Now under the same cooling capacity, the price ratio between the inverter air conditioner and the high-performance constant frequency air-conditioner stands at \*\*\*, the former's price is \*\*\* higher than that of the latter with the same HP, which restricted the popularization of the inverter air conditioner to some extent.

**Monthly Average Price of Inverter Air Conditioner in China**



Source: 3986 outlets in 436 cities, China Market Monitor Co., Ltd.; ResearchInChina

#### 4. Policy for Inverter Air Conditioner Industry in China

##### 4.4 Qualified for the Home Appliances to the Countryside

In accordance with the first round of Bidding Notice on the Project of National Home Appliance (Air Conditioner) to the Countryside published in 2010, the inverter air conditioner was selected into the bidding products for "National Home Appliance to the Countryside" for the first time. According to the Notice, the inverter air conditioner won the bidding will enjoy a subsidy at \*\*% of the selling price directly by the National Finance, of which, the wall-hanging inverter air conditioner can obtain the subsidy up to RMB\*\*\*, while the floor type can get up to RMB\*\*\*.

***Price Threshold and Subsidy for the Air Conditioner as "Home Appliance to the Countryside"***

Product	Price ceiling (Bidding in 2010)	Maximum subsidy
Split wall-hanging type air-conditioner		
Split floor type air-conditioner		

Source: Ministry of Finance, ResearchInChina

When it comes to the fourth round of bidding for the "Home Appliance to the Countryside" in 2010, each manufacturer increased their products for bidding from 50 models to 80 models, and there were total 26 air conditioner manufacturers to participate in the bidding, of which, Midea, Haier, Gree, Hisense, Kelon, Chigo, Galanz and Aux were all available for 80 models. According to the sales statistics for the "Home Appliance to the Countryside" in 2009, Gree and Midea still enjoyed a dominant position, contributing to about \*\*% of all such kind of air conditioner sales.

Conclusion: As of 2010, the air conditioner retention in rural market has only \*\*%, so a large potential for it there. Therefore, the inverter air conditioner listed into the bidding products for "Home Appliances to the Countryside" will significantly promote its extension in the rural market.

#### **4.5 Inverter Air Conditioner Technology is Included in the National Key Energy-Saving Technology Promotion Directory**

Electronic expansion valve inverter energy-saving technology was included in the National Key Energy-Saving Technology Promotion Directory (the third version) (hereinafter referred to as Directory ) which was released in November 2010. Meanwhile, the Key Energy-Saving Technology Report (the third version) (hereinafter referred to as Report) was unveiled in the same period, according to which, electronic expansion valve serves as the key throttling element in the inverter air conditioner system.

The "Directory" showed China was projected to lavish RMB200million by 2015 to promote the technology, up to \*\*% or more from current \*\*%. The policy is expected to help break the technical barrier and promote the localization of electronic expansion valve products, bringing the production cost down of downstream inverter air conditioner products.

#### **4.6 Inverter Air Conditioner is Included in the Government Procurement List of Energy-Saving Products**

The inverter air conditioner has been gaining increasing acceptance from the government functional departments and consumers shortly after the presence of inverter air conditioner in the sixth issue of Government Procurement List of Energy-Saving Products

In late 2010, the latest Government Procurement List of Energy-Saving Products was released by the Ministry of Finance and the NDRC, in which, it included increased number of inverter air conditioners by company and model.

The presence of inverter air conditioner in the government procurement list of energy-saving products facilitates the market promotion and accelerates the upgrade of domestic air conditioner products. Furthermore, the "List" almost involves all the domestically and foreign-owned air conditioner enterprises in the market of China, a fact signified that the domestic inverter air conditioner market would tend to more diversified.

**4.7 policy on the Exit of Low-Efficiency Inverter Air Conditioner from the Market will be Released**

***Energy Efficiency Grade Index of Inverter Air Conditioner (W/W)***

Type	Rated Refrigerating Output (CC)/W	Energy Efficiency Grade				
		5	4	3	2	1
Split Type	CC≤4500					
	4500<CC≤7100					
	7100<CC≤14000					

Source: National Standards Commission; www.OKOKOK.com

***Energy Efficiency Standard of Inverter Air Conditioner, 2008-2011 (W/W)***

Type	Rated Refrigerating Output (CC)/W	Allowable Value of Energy Efficiency 2008	Allowable Value of Energy Efficiency 2011
Split Type	CC≤4500		
	4500<CC≤7100		
	7100<CC≤14000		

Source: National Standards Commission; www.OKOKOK.com

## **5. Key Manufacturers**

### **5.3 Haier**

#### **5.3.1 Profile**

Established in 1984, Haier is the world's largest brand of home appliances and its revenue arrived at RMB\*\*\* billion in 2010. Qingdao Haier (600690) is the domestic listed company highlighting the production of home appliances, and Haier will integrate the home appliance business through the platform of Qingdao Haier in the future.

Currently, the home appliance business of Haier mainly falls into room appliance, kitchen & bathroom appliance, video & audio products, and commercial appliance; hereinto, the room appliance business which gives priority to refrigerator and household air-conditioner turns out to be the traditional advantageous industry of the company. Up to 2010, the annual capacity of the 16 production bases worldwide had hit \*\*\* air-conditioners. The company nowadays enjoys the third shares in domestic air-conditioner market.

#### **5.3.2 Operation**

According to the performance report of Haier in 2010, the operating income rested on RMB\*\*\*, up \*\*\*%YoY, the profit RMB\*\*\*, and the profit & tax surpassed RMB\*\*\* for the first time; wherein, the revenue from overseas market reached RMB\*\*\*, occupying \*\*\*% of the total operating income.

In H1 2010, its air-conditioner business acquired the operating income of RMB\*\*\*, up 32.57%YoY, of which, household air-conditioners contributed RMB\*\*\*, up \*\*\*%YoY, and the rapidly increased market share in freon-free inverter air-conditioner field became the biggest bright spot.

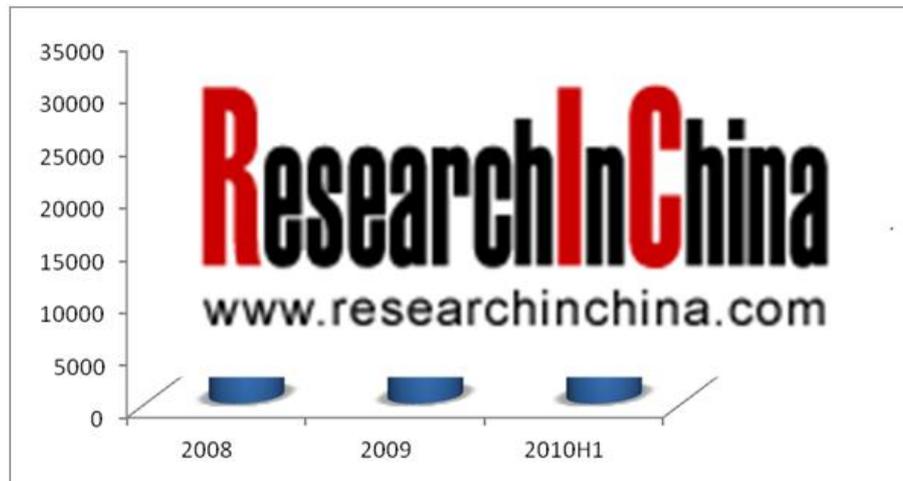
**Operating Income and Net Income of Qingdao Haier, 2005-2010 (Unit: RMB mln)**



Source: Qingdao Haier; ResearchInChina

From the perspective of product structure, refrigerator and air-conditioner compose the dominating businesses of the company. In H1 2010, the revenue from refrigerator and air-conditioner businesses accounted for respectively \*\*\*% and \*\*\*% of the total operating income. The technical R&D edges in high-efficiency air-conditioner and inverter air-conditioner fields are the major drives for the sustainable growth of revenue from air-conditioner business.

**Operating Income Structure of Qingdao Haier by Product, 2008-2010 (Unit: RMB mln)**



Source: Qingdao Haier; ResearchInChina

### 5.3.3 Air Conditioner Business

Based on the statistics of domestic air-conditioner market in 2010, Haier air-conditioners seized the third share in domestic air-conditioner market after Gree and Midea. During the first 11 months of 2010, the sales volume of Haier air-conditioner occupied \*\*\*% of the domestic total, accordingly, its sales volume in domestic market would register \*\*\* throughout the year.

By virtue of the superiorities in technical R&D, the high-efficiency air-conditioner and inverter air-conditioner of Haier boast relatively large market shares. In 2010, Haier inverter air-conditioner obtained \*\*\*% in the domestic inverter air-conditioner market, not that evident gap from Gree (\*\*\*%). Moreover, Haier takes the lead in domestic freon-free inverter air-conditioner market. It has initiatively popularized A+ freon-free inverter products, set up "promotion alliance for freon-free inverter air-conditioner", and established the global first "low carbon industry chain of freon-free inverter air-conditioner" via the integration of good-quality supplier resources.

#### *Air Conditioner Product Structure of Qingdao Haier, 2010*



Source: China Market Monitor Co., Ltd.; ResearchInChina

***Inverter Air Conditioner Product Structure of Qingdao Haier, 2010***



Source: China Market Monitor Co., Ltd.; ResearchInChina

#### **5.3.4 Investment Planning**

In regard to the development planning of Haier in household air-conditioner field, high-efficiency fixed-frequency air-conditioner and inverter air-conditioner will remain the focus.

In January 2010, Haier founded the first industry chain of freon-free inverter air-conditioner with the global Top 8 upstream suppliers so as to introduce the upstream suppliers into the modularized supply mode. In July 2010, the board of directors approved the proposal concerning the project of the plant featuring \*\*\*sets of freon-free inverter high-efficiency air-conditioners with the investment of RMB\*\*\*, after the completion of which, the share of Haier in freon-free inverter air-conditioner market will be further expanded.

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