was a natural reaction considering that the technology immediately reduced energy loss by more than half and delivered an annual electric bill savings of 21%. Daikin suddenly found itself leading the savior of saving air conditioners, which until then had seen competitors undercutting each other by 100 yen to gain an edge amid heated competition.

Two years after the commercial air conditioners hit the market, Daikin debuted as its main commercial edge amid heated competition.

In newly emerging markets, where income levels are still low, the widespread adoption of inverter technology will require the manufacture of inverters at a lower cost than in Japan.

Daikin has already incorporated inverters into all of its room air conditioners sold in Japan. Market share has been expanding steadily since the implementation of air conditioning business reform plan in 1994. In the same year, Daikin became the first to reform plan in 1994. In the same year, Daikin became the first to manufacture a global standard inverter. Ohyama, who created the world’s best inverter. His words also reflect his passion for “cooperative creation” in solving multiple issues with one technology.

Air conditioners without inverters cool or heat a room to a set temperature, then turn OFF once the temperature is reached. They then turn back ON again when the temperature rises above or falls below the set temperature, repeating this process during operation. As a result, room temperature fluctuates and energy is wasted.

Inverter market share is expected to rise, there are still issues to consider, including the development of lower-cost machines for low-income regions. Other issues include the scarcity of raw materials, differing electric power infrastructures in each locality, and establishing maintenance structures. To solve these issues, Ohyama and his members are focusing their R&D on low-cost inverters and inverter intelligence.

As Daikin expands its global presence, it will also continue to find new ways of advancing Japan’s technological strengths. “Anyone can solve one problem if they pursue only that,” notes Ohyama. “We’ve gotten this far by using one technology to solve two problems. We’ll keep challenging ourselves in this spirit,” he adds with the pride of an engineer who created the world’s best inverter. His words also reflect his passion for “cooperative creation” in solving multiple issues with one technology.

### Key Technology ❶

**Non-inverter Type Air Conditioners**

- **Compressor**
- **Motor**
- **Fixed speed**
- **Temperature is regulated only by high-motor speed Inverter**
- **Temperature is adjusted quickly by high-motor speed Inverter**

**Non-inverter type**

- **Compressor**
- **Motor**
- **Fixed speed**
- **Temperature is adjusted only by motor speed**

**Inverter type**

- **Compressor**
- **Motor**
- **Variable speed**
- **Temperature is adjusted quickly by high-motor speed Inverter**

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### Expanding Air Conditioner Market Share In and Outside Japan

Sales in each region around the world have also grown steadily each year. In newly emerging markets, where income levels are still low, the widespread adoption of inverter technology will require the manufacture of inverters at a lower cost than in Japan.

In 2008, Daikin and Gree Electric Appliances on inverter air conditioner production outsourcing agreement with China’s Gree Electric Appliances was concluded. This newly developed air conditioner for China’s Gree Electric Appliances, with which Daikin has a production outsourcing agreement, is non-inverter type.

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