#### **Consumer Products**

In the consumer products field, Toshiba aims to further improve the usability of familiar electric appliances and create products tailored to the life style of the customer. Listening to the voice of the customer, we focus on finding highly desirable functionality to offer unique products based on our core technologies such as inverter technology, refrigeration cycle technology, motor control technology, long-life lighting technology and so on.

### TW-2500VC/2000VC Air Conditioning Cycle Drum



TW-2500VC air conditioning cycle drum

Toshiba HA Products Co., Ltd. has released an air conditioning cycle drum type washer-dryer, the TW-2500VC/2000VC is equipped with an air-conditioning cycle engine, which has a heat-pump type low-temperature drying unit, and has attained the industry's number one<sup>(\*)</sup> energy saving performance and reduced drying time on the Japanese market.

The main features are as follows:

- Drying time is reduced with the S-DD (Direct Drive)<sup>+3</sup> engine<sup>TM</sup>, designed to give the machine the ability to perform powerful dehydration at the industry's fastest<sup>(\*)</sup> rotation speed (1500 rpm) without using a heater or coolant. High-efficiency dehydration by a high-power compressor and high airflow fan help to attain the industry's number one<sup>(\*)</sup> energy saving in the Japanese market (Power consumption from washing to drying: 1600 Wh, Water consumption: 64 L).
- The world's first<sup>(\*)</sup> washer/dryer with an airconditioning function is designed to have about 800 W of cooling capability, so that it can lower the temperature of an approx. 3.3 square-meter room from 30°C to 25°C in about 15 minutes.
- World's first<sup>(\*)</sup> warm water for washing without using a heater. The water temperature is raised about 10° C by the air conditioning cycle engine, which can improve the washing capability by about 10%. It attains an energy saving of about 10% compared to the conventional heater type.
- Hot dry air at 70°C is blasted over the clothes to dehydrate and dry offering a good finish close to that achieved by sun-drying and reducing shrinkage and wrinkling.

(\*) As of June 1, 2006 (as researched by Toshiba)

## **GR-W45FS French-Door Type Refrigerator**



GR-W45FS refrigerator

Toshiba HA Products Co., Ltd. has worked on evolving the popular compact module engine, and has developed a 450 liter non-fluorocarbon French-door type refrigerator which enables the improvement of cooling performance and expanded internal volume.

The main characteristics are as follows.

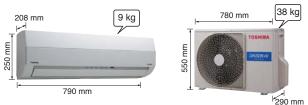
- The vegetable amino acid and sugar level in food is improved and fine freezing by suppressing frost formation on the frozen food is realized with "E-twin cooling" system.
- Deodorization and bacteria elimination are performed and cold air is cleaned with "the clean cooling air function TM+O<sub>3</sub>". Moreover, automatic maintenance-free operation over 12 years is achieved.
- A universal design which makes opening and closing easy with an electromotive style touch opening device and automatic door-closing structure is employed.
- It is possible to store a standing drink can even just under the lamp by the adoption of LED (Light-Emitting Diode) ceiling lighting.
- Cooling performance is not easily caused to deteriorate and actual storage capacity has been expanded by adopting a high-efficiency heat insulation design which reduces the insulation thickness suppressing heat loss to a minimum and by improving the twin cooling system developed in the previous year.

### DAISEIKAI<sup>™</sup> 1:1 Type Inverter Air Conditioner with Energy Saving and Advanced Purification System for Overseas

Toshiba Carrier Corporation has developed a new Hi-Wall type inverter air conditioner DAISEIKAI<sup>TM</sup> for overseas, and in January 2007 launched a total of 6 models with cooling capacities of 10 kBtu, 13 kBtu, 16 kBtu class for both the standard and North Europe type. The features of this product are as follows:

- The world's best class EER 5.10 at 10 kBtu model (as of December 2006) is achieved by the high-efficiency twin rotary compressor, vector control inverter, high-efficiency heat exchanger and other advanced parts.
- For advanced purification
  - DAISEIKAÎ<sup>TM</sup> is equipped with an Ag plasma air purifier.
    - This unit produces the effect of absorbing and eliminating dust and viruses. Moreover, a high-performance deodorizing effect is achieved by Ag.
  - Self-cleaning function with low-density ozone reduces mold inside the indoor unit.
- The North Europe type has additional specifications for cold regions. This type can be set to low-heat operation (setting temperature: 8°C) to reduce freezing inside the house in the winter season. Furthermore, this unit is equipped with a heater on the base plate of the outdoor unit to evaporate collected drain water and prevent it from freezing.

Btu: British thermal unit EER: Energy Efficiency Ratio



All units have the same dimensions & weight

DAISEIKAI™ unit



North Europe type

Features of North Europe type

# Mellow Z PRIDE<sup>™</sup> Three-Band Fluorescent Lamp



Mellow Z PRIDE™30-type clear-daylight three-band fluorescent lamp

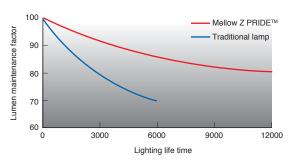
Toshiba Lighting & Technology Corporation has realized 30% higher brightness just below the lamp by coating the inside of circular fluorescent lamps with a reflector layer for the first time in the industry  $^{(*)}$ . Moreover, we have achieved 12,000-hour long life and a high lumen maintenance factor of about 80% of the initial value at the time of nominal end of life, and launched the Mellow Z PRIDETM as the top model of our three-band fluorescent lamp on the market on September 1, 2006.

The key technologies are as follows:

- Adoption of spherical silica protective film By adopting spherical silica with less adsorption of gaseous impurities for the protective film and optimizing the thickness of the film with coating technology, we have realized a lumen maintenance factor of about 80% at the time of the nominal end of life.
- Adoption of triple coil (only for FCL30)

  By adopting triple coils and optimizing the amount of emitter, we have achieved a long life of 12,000 hours, which is twice as long as that of conventional products.

#### (\*) As of April 2005 (as researched by Toshiba)



Lumen maintenance factor over lighting life time