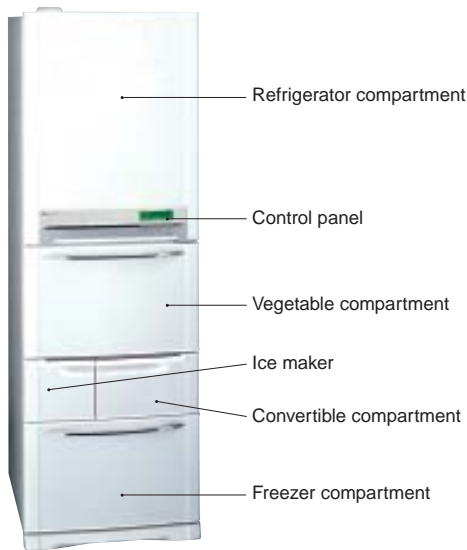


In the field of household appliances, Toshiba develops products furnished with earth-friendly, human-friendly, enjoyable and convenient functions on the base of unrivaled basic functions with a concept of Simple & Comfortable. In the field of air conditioning, Toshiba consistently develops energy saving products friendly to the global environment from small air conditioners to large air conditioning devices. In the field of lighting, Toshiba develops socially conscious, human-conscious and environment-conscious products with the concept "Toshiba creates 'comfort' with the light of tomorrow".

The GR-NF415GX 2-Stage Non-Fluorocarbon Refrigerator, named the SENZOHO™



The GR-NF415GX 2-stage non-fluorocarbon refrigerator, named the SENZOHO™

The first priority among the needs of the customer for their home refrigerator is "saving energy".

To meet this need, Toshiba HA Products Co., Ltd. has developed an industry first 2-stage compressor containing two cylinders in one compressor case, as well as a 2-stage parallel freezing cycle capable of independently controlling the temperature of each freezing and refrigeration compartment at the optimum level in combination with a PMV (Pulse Motor Valve), which enables the regulation of the newly developed refrigerant flow rate and circulation path.

With energy consumption in the order of 150 kWh/year* its energy saving credentials are very high, and sales of the GR-NF415GX refrigerator, which adopts this technology began in January, 2004.

The main characteristics are as follows:

- A minimum electric power consumption figure of 150 kWh/year*, which is No. 1 in the industry for the 400 L class has been attained.
- 2-stage compressor and 2-stage parallel freezing cycle were adopted for the first time in the industry.
- A plasma deodorization anti-bacterial unit was set up in each of the cold circulation routes for freezing and refrigeration, and clean food preservation made possible with pure fresh cold air.

*As of April, 2004, measurement value based on JIS C 9801

THE TOP IN DRUM™ TW-80TA Automatic Washer Dryer



THE TOP IN DRUM™ TW-80TA automatic washer dryer

The demand for clothes-drying functionality is expanding in the washing machine market, as with the previous shift in the mainstream of washers from the twin-tub type to fully automatic models. In response to the diverse user needs discovered based on an analysis of voice of the customer (VOC) results, Toshiba HA Products Co., Ltd. has developed a series of washer dryers. The first washer dryer launched on the market was of the drum type with a front-loading system, maintaining the regular style of a washing machine but with the additional drying function.

The TW-80TA model introduced in March, 2004 is a drum type washer with a top-loading system, and the latest digital signal processor (DSP) control technology.

The features are as follows:

- Improvement of washing and drying finish by the large capacity drum and special baffles.
- Reduction of water consumption in wash cycle by high speed spin and optimum drum rotation control with DSP control.
- Low operation noise and vibration by direct drive inverter motor with DSP control. Other noise and vibration reduction technology (oil suspension, twin-liquid-balancer, and so on) is also adopted.
- Easy operation with a top-loading system, one push opening slide door and motor assisted inner lid.

Super Modular Multi System™ High-Efficiency Multi Air-Conditioner for Building Use

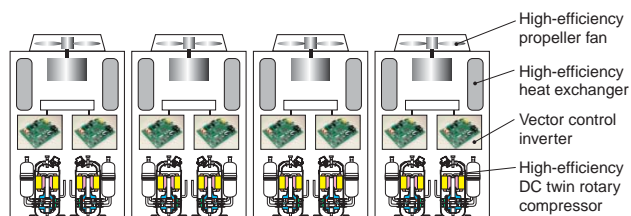
There is a growing need for energy-saving products that protect the global environment and reduce the cost of electric power consumption. In response to this need, Toshiba Carrier Corporation and Chubu Electric Power Co., Inc. have developed the Super Modular Multi System™ of high-efficiency, high-reliability and comfortable multi air conditioners for building use, with cooling capacities ranging from 14 kW to 135 kW.



Configuration of Super Modular Multi System™

- The features of these products are as follows:
- The world's highest coefficient of performance (COP) of 4.10 is achieved in the cooling capacity 22.4 kW class model.
 - Reduction of the annual energy consumption by half compared with the conventional model by improving not only the rating performance but also the partial load performance
 - High reliability of the compressors by reduction in the starting stress and on-off frequency and by "rotation operation"
 - Realization of comfort by linear capacity control and optimal refrigerant distribution control with a dual inverter system

These features are achieved by developing the key components and control technology shown in the figure below.



Refrigerant: R410A

AI dual inverter system

Quick Run-Up Neo-Ball Z, Self-Ballasted Compact Fluorescent Lamp



Quick run-up Neo-Ball Z, self-ballasted compact fluorescent lamp

Toshiba Lighting & Technology Corporation has greatly improved the run-up characteristics of the Neo-Ball Z, which has been received favorably as an energy saving alternative light source in place of the incandescent lamp (IL). Unfortunately, there was a problem in that the luminous run-up characteristic of the globe-type was slow and rather unsatisfactory, especially within a second or two of starting, since the first launch in 1998.

In 2003, we succeeded in improving the characteristic of the "A"-shape globe-type designed to take the place of a 60 W IL, as a result of research into heat-transfer and on the mercury vapor pressure of amalgam. The newly developed product, with the type name "EFA15/13", now has the following features.

- Bright just after starting
Luminous run-up characteristics at the top level within this category of lamps. In particular, the relative luminous output just after starting is 35% of that in stable operation (former type was 10%), and also it takes only 2 seconds to reach 50% output (6 seconds for former type).
- Considerate of environmental concerns
Saving energy: the lamp power consumption is one fourth of that of an IL with the same luminous output.
Saving resources: the lifetime is 6 times longer than an IL's.