VEGETA[™] Series GR-F51FXV Refrigerator-Freezer for Household Use



VEGETA[™] GR-F51FXV refrigerator-freezer

Toshiba Home Appliances Corporation has released the VEGETATM series GR-F51FXV refrigerator-freezer as a completely new model with an innovative design employing glass doors, which offers both energy saving and high capacity.

The main features of this model are as follows:

- With its clear glass doors, the GR-F51FXV realizes an elegant and clean design. The control panel on the flat glass is composed of electrostatic touch switches and high-intensity light-emitting diode (LED) lights. When the control panel is not being used, the lights turn off and the control panel is integrated with the glass, thus harmonizing the appliance with the home's kitchen and living room interiors. As a result of these features, the GR-F51FXV received the Good Design Award 2012.
- Due to the optimized heat insulation thickness for both the refrigerator and freezer and high-performance vacuum-insulated panels with increased thickness and area, as well as detailed operation control with a total of 13 sensors including an additional humidity sensor and improved efficiency of "wide-range twin-cooling" that provides optimal refrigeration and freezing, this product has achieved the industry's top energysaving performance^(*) (annual power consumption: 180 kWh/year). In addition to the standard "Eco mode," the GR-F51FXV incorporates both a "power-saving function" and "peak shift function." These new features actively support the user's power-saving actions.
- The optimized heat insulation thickness, improved arrangement of electrical parts, and a low-floor design have made it possible to position the vegetable

ZABOON[™] Series TW-Z9500 Drum Type Washer-Dryer Allowing All Processes from Washing to Drying in Eco Mode



ZABOON[™] series TW-Z9500 drum type washer-dryers with heat pump

Toshiba Home Appliances Corporation has released the TW-Z9500 washer-dryer, which has the industry's highest energy-saving performance^(*1). This washerdryer received the 2012 Grand Prize for Excellence in Energy Efficiency and Conservation in the Product and Business Model Category, and the Chairman's Prize in the Eco-Efficiency Category, of the Energy Conservation Center, Japan. It also received the Good Design Award 2012 and the iF Product Design Award 2013.

The main features of the TW-Z9500 are as follows:

- The high-performance attenuator, which reduces the resonance of the compressor, allows efficient control of the drying unit and realizes a power consumption of approximately 620 Wh^(*2).
- With Toshiba's unique "active suspension" that can change the damping force, the entire washing/drying process is completed at exactly the time indicated, without any loss of time to restart draining. This realizes the industry's fastest washing time^(*3) of 29 minutes.
- (*1) As of August 2012 (as researched by Toshiba Home Appliances Corporation)
- (*2) In the standard washing/drying cycle for $6~{\rm kg}$ of clothes
- (*3) As of August 2012, in the standard washing/drying cycle for 9 kg of clothes (as researched by Toshiba Home Appliances Corporation)

compartment in the center, making it easier to put in and take out heavy vegetables and plastic bottles, as well as expanding the freezer capacity.

(*) As of October 2012, for refrigerator-freezers of 501 L or higher class (as researched by Toshiba Home Appliances Corporation)

TORNEO V[™] VC-SG512 Centrifugal Vacuum Cleaner



TORNEO V[™] VC-SG512 centrifugal vacuum cleaner

Toshiba Home Appliances Corporation has released the TORNEO VTM VC-SG512 centrifugal vacuum cleaner, which maintains a suction power of 99% or more without a dust collection filter.

The main features of this model are as follows:

- The Vertical Tornado System[™], which realizes a vertical design with a primary separation section and a secondary separation section consisting of 12 cylinders, maintains a suction power of 99% or more.
- With its compact design and the use of carbon materials, the main body weighs only 3.3 kg and the total weight of the hose, extension wand, and head is only 1.4 kg.
- The "Eco mode" automatically reduces the suction power whenever the suction head is suspended. This reduces power consumption by approximately 52% compared with the "Power mode."

DAISEIKAI VOiCE[™] EDR Series Room Air Conditioners



Indoor unit of DAISEIKAI VOiCE[™] EDR series room air conditioner

Toshiba Home Appliances Corporation has released the DAISEIKAI VOiCE[™] EDR series room air conditioners equipped with its proprietary dual compressor, with the aim of promoting energy saving and providing maximum comfort.

The indoor unit with its innovative design was selected for inclusion in the Best 100 category of the Good Design Award 2012.

The main features of this product are as follows:

- At start-up, two cylinders rotating at high speed quickly provide a comfortable environment.
- One of the two cylinders rotating at low speed around the preset temperature provides both energy saving and comfort.
- Cool/thermal operation achieves cooling and heating with the industry's lowest power consumption^(*) of 45 W (for 100 V models).
- The air conditioner is equipped with a voice controller, offering easy voice operation.
- (*) As of February 2013, for room air conditioners for household use (as researched by Toshiba Home Appliances Corporation; RAS-401EDR model tested under Toshiba Home Appliances Corporation's own conditions)

E-CORE[™] High-Lumen Tubular LED Base Light



E-CORE[™] high-lumen tubular LED base light

Toshiba Lighting & Technology Corporation has developed a high-lumen tubular LED base light that conforms with the Japan Lighting Manufacturers Association (JLMA) JEL801 standard (Tubular LED lamp system (for general lighting use) with L-shaped pin base GX16t-5).

Although we have already released a base light (2 400 lm) that also complies with the standard, the new base light has higher output and improved efficiency.

Owing to the combination of efficient LED components and an initial illuminance controller, the newly developed base light (3 500 lm) realizes energy saving of approximately 35% compared with high-frequency fluorescent lamps.

This base light can be used in school classrooms requiring high illuminance, and is expected to be widely adopted in the market.

Cloud Type Home Energy Management System Using ECHONETLite[™] Communication Guideline

As household energy consumption is showing a tendency toward a further increase in the future, dissemination of the home energy management system (HEMS) has become an urgent issue.

Toshiba has developed a cloud type HEMS adopting the ECHONETLite[™] communication standard, with the aim of realizing energy saving when controlling numerous devices as well as the visualization of energy consumption.

For the visualization of energy consumption, an energy measurement unit connected to the home switchboard measures and displays the consumption of electricity, gas, and water, as well as the amount of electricity generated by the home's photovoltaic (PV) system and fuel cell.

In addition, this system uses electricity forecast data released by each electric power company to display the severity of the electricity supply situation as well as the electricity consumption of the household, and informs the users when the situation requires greater power-saving efforts.



IT: information technology LAN: local area network

System architecture of cloud type HEMS using ECHONETLite[™] communication guideline

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