



“ZABOON” TW-Z8000/Z9000 Drum-Type Washer-Dryers



“ZABOON” heat-pump hybrid drum-type washer-dryers

Toshiba Home Appliances Corporation has released the TW-Z8000/Z9000 drum-type washer-dryers offering both high washing capability and energy saving.

The main features of these models are as follows:

- Adoption of ACTIVE S-DD motor (variable-magnetic-force motor)

This motor optimizes the motor characteristics for both the washing and spin-drying processes, which had previously been difficult to control. The variable-magnetic-strength motor provides improved operating efficiency while reducing the power consumption of the motor by up to 16%. This is accomplished by controlling the magnetic force on the rotor sides. Washing torque has also been increased by 20% for low-speed rotation. In addition, water removal has been enhanced by achieving a high rotational speed of 1 700 rpm for the spin-drying mode, while reducing the power consumption of the drying process. These features reduced the overall power consumption to 760 Wh, the top-rated^(*) power consumption performance in the Japanese market for washer-dryers in this class.

- Adoption of high-pressure double-shower system
- Washing efficiency has been improved by making the clothes fall from a higher position due to the quick rotation and stopping of the drum. Water consumption is also reduced by 10% by the “water-saving ZABOON wash” method, in which the clothes are efficiently washed with a small amount of water using two high-pressure double-shower systems.

- Deodorization and disinfection of clothes (TW-Z9000)
- A mist is created from the supplied tap water by applying a high voltage to a mist-generation pin. Bacteria in the clothes are destroyed by spraying hydroxyl (OH) radicals produced in this mist onto the clothes. Mold in the drum is also reduced by this process.



High-pressure double shower

(*) As of September 2009
(as researched by Toshiba)

Image of washing using high-pressure double-shower system

GR-B55F/B50F/B48F Large-Capacity Energy-Efficient Refrigerators



GR-B55F refrigerator

Toshiba Home Appliances Corporation has released the GR-B55F/B50F/B48F large-capacity and energy-efficient six-door refrigerators with an original layout in which the vegetable compartment is positioned in the center.

The main features are as follows:

- Through the adoption of a layout in which the refrigerator zone and freezer zone are isolated from each other, reducing the need for insulated partitions and making a larger capacity design possible, while equipping each of the zones with highly efficient “i-twin” evaporators and employing high-performance thermal insulation materials, an energy consumption of 290 kWh/year (GR-B50F/B48F), one of the leading energy-saving performance for refrigerators of this class in the market, has been achieved.
- The “Picoion™ Jokin Virus Hunter” function uses Picoion™ enclosed in OH radicals to eliminate bacteria in the vegetable compartment as well as suspended viruses, keeping the stored food fresh and clean.
- The vegetable compartment is located in the center, making it easier to put in and take out heavy vegetables and plastic bottles and reducing the burden of household chores.

VC-PS300X/VC-P200D Mega Wheel™ Paper Dust-Collection Bag Type Vacuum Cleaners



VC-PS300X and VC-P200D vacuum cleaners

Toshiba Home Appliances Corporation has released the VC-PS300X and VC-P200D paper dust-collection bag type vacuum cleaners offering both high suction power and low operating noise, with the VC-P200D model achieving the No. 1^(*) suction power in the market.

The main features of these models are as follows:

- The VC-PS300X achieves the quietest^(*) operating noise level in the market of 47 dB/54 dB (new standard), thanks to its QUIE™ structure consisting of a motor shock absorber to reduce overall noise, vibration-damping rubber to suppress vibration, and front and rear silencer units to absorb the suction and exhaust noise.
- The VC-P200D achieves a suction power of 620 W, the No. 1^(*) level in the market, due to the adoption of a newly developed highly efficient motor and a special structure that creates a wind path with reduced air resistance.
- The “full-surface suction” system allows air to pass through the paper bag from all directions and maintains high suction power until the paper bag is completely filled with dust.
- The Mega Wheel™ structure allows the main unit to move smoothly and turn in a small circle.

(*) As of October 2009 (as researched by Toshiba) in the Japanese domestic market

NEW ESTIA™ Air-to-Water Heat Pump System for Space Heating and Hot-Water Supply

In the European market, hot-water heating systems in which a boiler is heated by fossil fuel are prevalent. However, the share of air-to-water heat pump hot-water supply systems has recently been increasing due to their lower carbon dioxide (CO₂) emissions in comparison with fossil-fuel boiler heating systems.

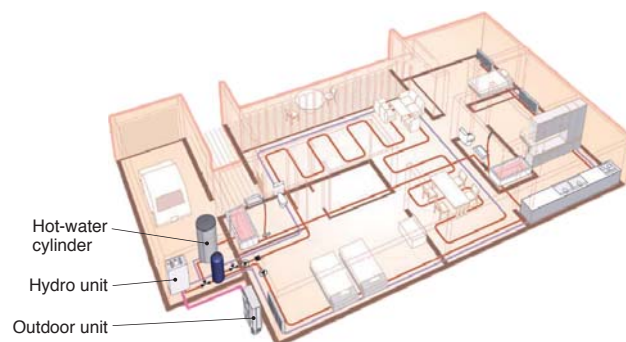
To meet this market demand, Toshiba Carrier Corporation has developed the ESTIA™ air-to-water heat pump, which delivers world-leading^(*) energy efficiency. The ESTIA™ has achieved the industry's top^(*) coefficient of performance (COP) with our core technology of an inverter and a DC twin-rotary compressor applied to a conventional hot-water heating system.

In addition, the ESTIA™ incorporates a two-zone control function that ensures optimal heating comfort by supplying hot water at different temperatures suitable for individual heating emitters of different types.

The ESTIA™ has 8 kW-, 11 kW-, and 14 kW-capacity models as well as selectable backup heater (3 kW to 9 kW) models.

This product has been marketed in Europe since June 2009.

(*) As of January 2010 (as researched by Toshiba)



ESTIA™ air-to-water heat pump system

E-CORE™ 8.7 W Bulb-Shaped LED Lamp



E-CORE™ 8.7 W LED lamp

Toshiba Lighting & Technology Corporation has developed the high-efficiency E-CORE™ 8.7 W light-emitting diode (LED) lamp that can replace conventional incandescent lamps.

High brightness and compact size were achieved by optimization of the parts arrangement and the heat radiation structure, which was made possible by incorporating a newly developed high-density package exclusively for the LED module.

The main features of this product are as follows:

- The total luminous flux of the LED lamp is 810 lm^{(*)1}, the same as that of a 60 W type^{(*)2} incandescent lamp, with a luminous efficacy of 93 lm/w.
- The LED lamp has a power consumption of 8.7 W and a rated lamp life of 40 000 hours. It reduces power consumption to about 1/6 and has a 40 times longer lifetime compared with a conventional incandescent lamp.
- The LED lamp is mercury free.

(*)1 LEL-AW8N model (color temperature: 5 000 K)

(*)2 Toshiba LW 100 V 54 W incandescent bulb white lamp

Specifications of LED lamps

Model	Color temperature (K)	Diameter (mm)	Overall length (mm)	Base	Supply voltage (V)	Power consumption (W)	Total luminous flux (lm)	Lifetime (hours)
LEL-AW8N	5 000	119	60	E26	100	8.7	810	40 000
LEL-AW8L	2 800	119	60	E26	100	8.7	600	40 000

E-CORE™ LED Security Streetlight 600



E-CORE™ LED Security Streetlight 600

The security streetlight is a luminaire that is required to give off sufficient light to illuminate the behavior and posture of pedestrians so as to prevent crime at night.

Toshiba Lighting & Technology Corporation has used LEDs with excellent light-emitting efficiency to commercialize the E-CORE™ LED Security Streetlight 600. The LED Security Streetlight 600 consumes 8.5 W of power while providing a level of brightness equivalent to that of a 20 W fluorescent-lamp security streetlight.

In addition, while producing the same amount of luminance, this product reduces power consumption and CO₂ emissions by approximately 64%. Further, this light source has a usable lifetime of 60 000 hours, seven times longer than that of a fluorescent lamp, greatly reducing the frequency of lamp replacement.

The luminaire body has a length of 306 mm and a mass of 0.9 kg, making it shorter in length and smaller in mass by approximately 55% compared with a 20 W fluorescent-lamp security streetlight (678 mm in length, 2.0 kg in mass).

The luminaire is constructed of the minimum necessary number of components and the body is made of plastic to improve assembly and lower costs.