SOLUTIONS FROM TOSHIBA ELEVATORS

COMPANY SOLUTIONS
Toshiba Elevator and Building Systems Corporation is a subsidiary of Japanese conglomerate Toshiba Corporation – a global company with history of 140 years. Utilizing the comprehensive technological infrastructure developed by Toshiba Group, we aim to further enhance the leading edge technologies and quality to respond to markets expectations and requirements for safe and comfortable escalators.

TOSHIBA ESCALATOR
CONCEPT of Kindmover

Kindly designed for everyone
The “Kindmover” escalator incorporates numerous universal design features based on the concepts of “Kind to passengers and Kind to maintenance-persons” for the materialization of a new escalator that is both easy to use and easy to maintain.
SOLUTIONS for Energy Saving

Energy Saving, Longer Life Span, Mercury-free

Contribute to energy and CO2 reduction

Pole-less Automatic Operation

When passengers are not using the escalator, it automatically changes to low speed standby mode. If sensor detects a passenger, escalator will gradually accelerate to its rated speed. *This optional operation can be installed without any truss extension.

Pole-less Automatic Operation is *30% less energy consumption compared to conventional model.

*Truss size may extend due to other additional options.

*Estimated energy consumption calculation: Escalator is in operation at rated speed for 15 times per 1 hour. (Escalator floor height is 5 meters.)
Rated speed continues for two minutes in total when active.

Application of LED Lightings

LED lightings is applied at the skirt guard, step demarcation and comb.
LED lightings has longer life span, more energy saving compared to the fluorescent lightings. Besides, it is environmentally friendly because it is mercury-free.

Lighting System At The Skirt Guard

The lighting system at the skirt guard is to provide better visibility at the steps. Thus, it also enhances the safety of the passengers. The lighting system also acts as a part of aesthetic of the escalator.
SOLUTIONS for Safety and Universal Design

The “Kindmover” Escalator Creates a New Standard for Buildings.

ESNAVI

1. Escalator Operation Monitor for Passenger-Friendly Guidance

“Arrow signs” and “No entry symbols” displayed on the operation monitor indicate the escalator’s operation direction to the passengers and provide passenger-friendly guidance. Furthermore, when the activation of a safety device stops escalator operation, the location of the activated safety device is shown on the operation monitor so that the maintenance staff can find the problem as quickly as possible.

2. High Contrast Design provides High-Visibility and Safety

The yellow color of the combs enhances the contrast against the black color of the steps and the landing plate, making it easy for the passengers to distinguish the moving steps from the stationary landing plate.

3. Safety Cleat System at the Landing

At the horizontal section of the landing, two steps engage and the gap between the steps is reduced so as to prevent objects from getting caught.

4. Skirt Deflector

Skirt deflector can be installed to prevent passenger from being caught between the steps and skirt guard.

5. Smart Deck Design using no outwardly protruding screws

The advanced design uses no exposed screws for securing the section between the deck board and the skirt guard as a measure for preventing clothing from getting caught and other similar problems.

6. Higher Inlet Position for Greater Clearance

Designed with the inlet in a higher position than conventional escalators in order to prevent objects from getting caught in the inlet.

7. Easier Access to Operation Panel

The operation panel, including the emergency stop button and key switch, is located nearer to the landing plate for easy and safe operation.
## Variations

**<Lighting>**

- **Balustrade with LED lightings**

**<Interior Panel>**

- **Stainless steel plate with hairline finish**

## Functions

### Basic Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>5400 / 5800 / 51000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>0.5m / s</td>
</tr>
<tr>
<td>Inclination</td>
<td>30° / 35°</td>
</tr>
<tr>
<td>Power supply</td>
<td></td>
</tr>
<tr>
<td>Main</td>
<td>AC 3-phase 380, 400, 415V-50/60 Hz</td>
</tr>
<tr>
<td>Lighting</td>
<td>AC single-phase 220,230 50/60 Hz</td>
</tr>
</tbody>
</table>

### Exterior Specifications

<table>
<thead>
<tr>
<th>Interior panel</th>
<th>Vertical flat tempered glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deck board</td>
<td>Stainless steel plate with hairline finish</td>
</tr>
<tr>
<td>Skirt guard panel</td>
<td>Sheet steel with fluororesin coating (black)</td>
</tr>
<tr>
<td>Handrail</td>
<td>Synthetic rubber (Black)</td>
</tr>
<tr>
<td>Front skirting</td>
<td>Synthetic resin molding (Black)</td>
</tr>
<tr>
<td>Step</td>
<td>2 steps</td>
</tr>
<tr>
<td>Number of helical step</td>
<td>2 steps</td>
</tr>
<tr>
<td>Tread</td>
<td>Stainless steel (Black)</td>
</tr>
<tr>
<td>Riser</td>
<td>Stainless steel (Black)</td>
</tr>
<tr>
<td>Demarcation line</td>
<td>Synthetic resin molding (Yellow)</td>
</tr>
<tr>
<td>Comb</td>
<td>Synthetic resin molding (Yellow)</td>
</tr>
<tr>
<td>Landing</td>
<td>Stainless steel</td>
</tr>
<tr>
<td>Landing plate</td>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

### Optional Specifications

<table>
<thead>
<tr>
<th>Skirt guard panel</th>
<th>Stainless steel plate with hairline finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comb</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Interior panel</td>
<td>Vertical stainless steel plate with hairline finish</td>
</tr>
</tbody>
</table>

### Lighting

- Balustrade lightings with LED
- Skirt guard lightings with LED (Liner / Circle)
- Step demarcation lightings with LED
- Comb lightings with LED

### Safety device

- Skirt guard safety device (Middle position)

### Function

- ENAVIT (Escalator operation monitor)
- Poleless automatic operation

## Handrail (7 Color variations)

Select the most suitable color from among seven available color variations to match the building use and design concepts.

- **Black** : Standard
- **Other six colors** : Optional

Colors:

- Black
- Gray
- Brown
- Blue
- Red
- Orange
- Green
Global Projects

- The Ritz-Carlton Jakarta, Mega Kuningan (Jakarta, Indonesia)
- L’Avenue (Shanghai, China)
- Taipei 101 MALL (Taipei, Taiwan)
- Marina Square, Reem Island (Abu Dhabi, UAE)
Global Projects

Environmental issue

In order to propose safe and secure escalator, Kindmover focuses on environmental issue. The advance technologies for energy consumption and resource saving concept offers high concerns for environmental consciousness.

- **Energy Saving**
  - Pole-less Automatic Operation
    - Pole-less Automatic Operation is *30% less energy consumption compared to conventional model.
    - *Truss size may extend due to other additional options.
    - *Estimated energy consumption calculation:
      - Escalator is in operation at rated speed for 15 times per 1 hour. (Escalator floor height is 5 meters.)
    - Rated speed continues for two minutes total when active.

- **Reducing hazardous materials**
  - Lead-Free design
    - Reduction of lead use by employing lead free control board.
  - Employing LED lightings
    - By employing LED light, various materials used for light become mercury free.
  - Lead-free Design of Base Plate, RoHS Compliance and Elimination of Specific Chemical Substances (15 Classifications)
    - Continuous concern on the RoHS compliance, eliminating 15 classifications of specific chemical substances, and using the lead-free technique for main circuit boards.

**Related Works for Escalator Construction**

Works not included in the Installation Contract (costs for the following work shall be burdened by the customer)

1. Any structural works, such as opening floors to accommodate the escalators or the installation of necessary support beams.
2. Finishes to peripheral architecture after installation.
3. Pit waterproofing work.
4. Installation of handrails, fences or other safety features around the escalator.
5. Escalator truss or exterior cladding work (Maximum load 123 N/m²); bottom illumination work. (Although not included within the scope of the standard installation contract, such customizations are possible upon request, at an additional cost.)
6. Installation of fire protection shutters, sprinklers and other building-safety features.
7. Building electrical work, such as the installation of main power cables, lighting cables, inspection power cables and grounding wires leading up to the escalator machine room.
8. Other peripheral wiring work, such as wiring to interlock escalator circuit with the fire shutter system (or other building safety systems), or wiring connections between escalator and various peripheral systems.
9. Worker locker room, materials stock yard, and other facilities necessary for the duration of the installation work.
10. Power supply, scaffolding, and other basic facilities necessary during installation and adjustment work.
11. Installation of wedge guard plates that are necessary where the escalators interact with the ceiling, or wherever escalators intersect.
12. Any other architectural works, such as the installation of partitions or fences around landings.

**Please provide us with the following information when ordering or making inquiries.**

1. Name and address of your building.
2. Type of escalator to be installed.
3. The total number of floors and height of each floor where the escalators are to be installed.
4. The voltage and frequency of main power supply, along with the voltage and frequency of power supplies to be used for lighting inspection.
5. Desired color of the handrails.
6. Whether the truss requires exterior cladding work.
7. Whether bottom illumination work is necessary.
8. Whether the escalator circuit is to be interlocked with the fire protection system or other peripheral circuitry.
Global Network

Together with our global partners, we connect with Asia and then the world, through our technology and our spirit. This planet is our shared heritage. We must live together, grow together and delight in one another.

[For more information]
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