TOSHIBA

TOSHIBA ESCALATOR
<TE-S1 Series Escalator>

Kindmover-Ⅱ

Safety Cautions

- Observance of relevant laws / regulations are required.
- Read the entire “Instruction Manual” carefully before use, for important information about safety, handling and operation.

TOSHIBA

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- The data given in this catalog are subject to change without notice.

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SOLUTIONS from TOSHIBA ESCALATORS

COMPANY SOLUTIONS

Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment and maintenance services in order to provide clients with the highest quality products and services.
Utilizing the comprehensive technological infrastructure developed by Toshiba Group in more than 140 years since its foundation, we aim to enhance the leading edge technology and quality that we used to develop the ultra high speed elevator, harnessing Toshiba's technological innovations to their fullest extent. To meet clients' expectations and requirements for safe and pleasant elevators as well as constantly pursuing further innovation and improvement. Furthermore, we are aiming to strengthen system development, production, enhancing sales channel and sales partnership to expand in the global market.

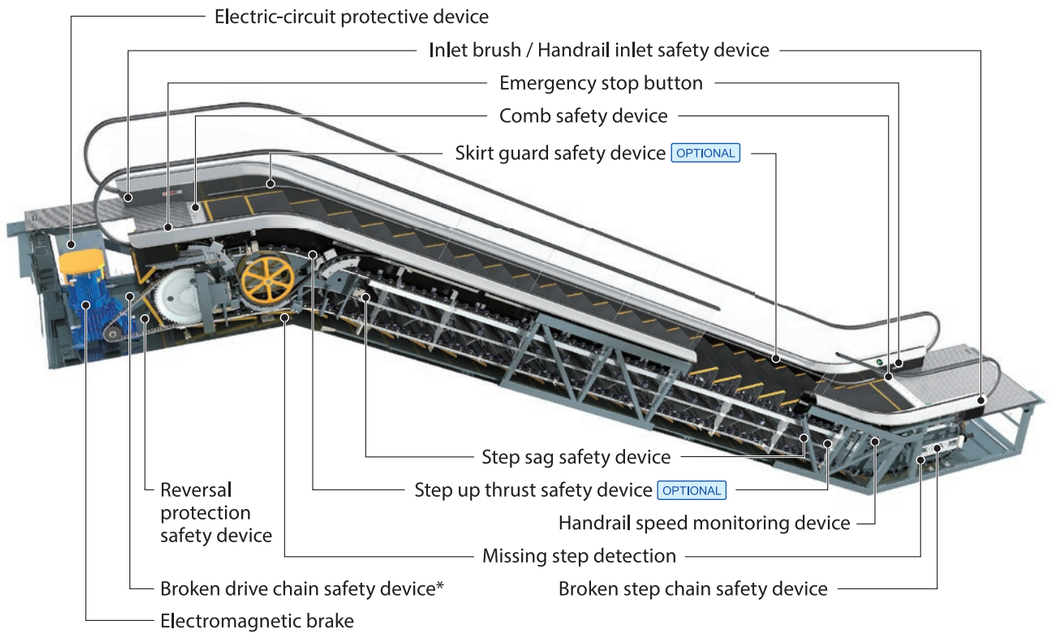
The concept of **Kindmover-Ⅱ**

Kindly designed for everyone

The escalator "Kindmover-Ⅱ" incorporates numerous universal design features. Based on the concepts of "Kind to passengers and Kind to maintenance", the newly designed escalator enables to be used and maintained easily for everyone.

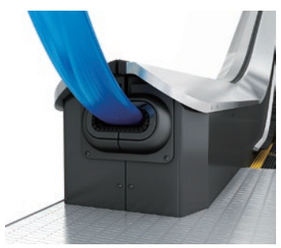
TOSHIBA ESCALATOR
Kindmover-Ⅱ
<TE-S1 Series Escalator>

TOSHIBA ESCALATOR safety devices



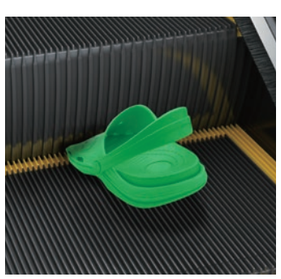
Note : Above safety devices comply with GB16899-2011 standards

TOSHIBA ORIGINAL SAFETY DEVICES



Inlet brush

By installing a brush type guard at the entrance of the handrail belt, it prevents children's hands getting trapped into.



Step up thrust safety device

OPTIONAL

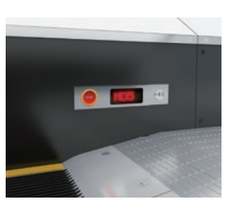
At the entrance and exit area of escalator, it detects that foot is caught in the gap between steps and stops escalator.

Skirt guard safety device OPTIONAL

At the entrance and exit area of escalator, this safety device stops escalator by detecting passenger's feet getting caught in the gap between step and skirt guard.

Broken drive chain safety device*

In the unlikely event which the drive chain is disconnected, since the escalator can not be stopped with a normal electromagnetic brake, this safety device will mechanically lock the moving mechanism of the step to stop the escalator.

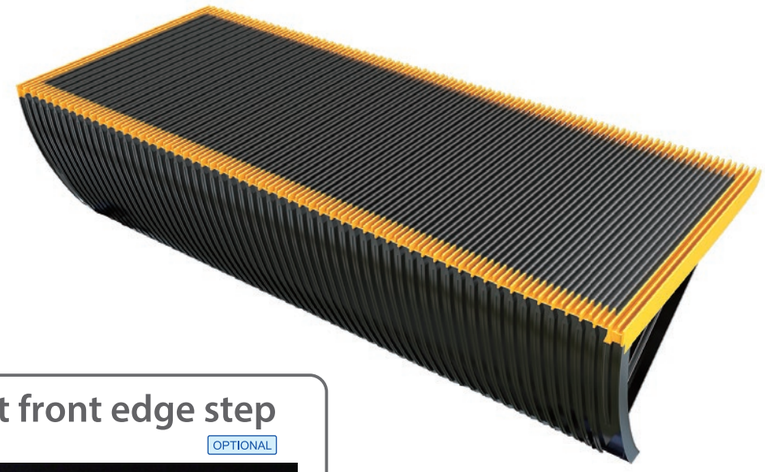


Information about the activation of safety device

This device will indicate which safety device has activated and stopped the operation.

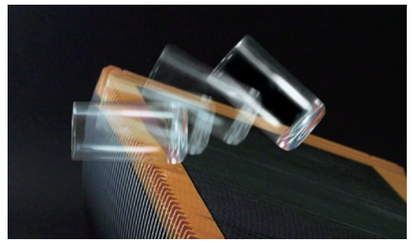
*If the floor height exceeds 6000mm, "Auxiliary brake" will be employed instead of "Broken drive chain safety device".

SOFT FRONT EDGE STEP for all users



New step **Soft front edge step**

OPTIONAL



< Glass dropped from 0.5m height >

Shock-absorbing material

In order to use escalator safely, we have employed shock absorbing material at the front edge of step.

We chose the optimum material considering the balance between "softness" to obtain cushioning effect and "hardness" to prevent getting caught due to deformation.

By adopting shock absorbing material at the tip of the step, the probability of mild head injury occurring compared with conventional steps is reduced by approximately 50%

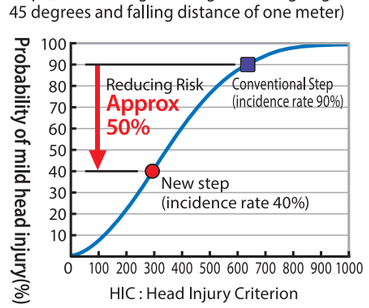
Assuming the case where the head of the user collided with the tip of the step, actually measure the standard value HIC of head injury by our proprietary method. Results using injury risk curve

HIC : Head Injury Criterion is calculated from crash acceleration, it is a standard value showing the extent of head injury. It is possible to calculate by drop test of the test subject simulating the head. It is mainly used in the automobile industry

Injury Risk Curve : A curve relating HIC to the probability of injury

Note : There may be differences in collision effect due to temperature, collision angle, falling distance and aging etc.

Assume that the head collides with the tip of the step (Collision angle during ascending angle of 45 degrees and falling distance of one meter)



Injury Risk Curves : A curve

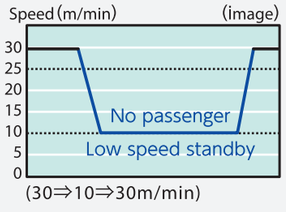
ENERGY SAVING

Contribute to energy and CO_2 reduction

20% Energy reduction

Low-speed standby operation OPTIONAL

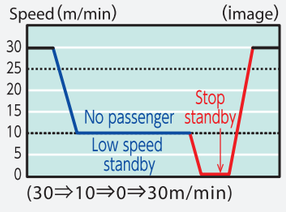
If the passenger is not using the escalator, it slows down at the speed of 10m/min, and when the sensor detects the passenger, it accelerates to the normal operating speed of 30m/min.



25% Energy reduction

Low-speed / stop standby operation OPTIONAL

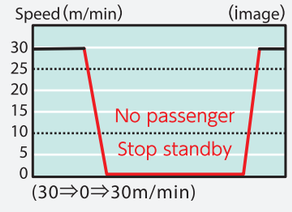
If there is no passenger, low-speed standby operation is activated and after a certain time of period, the escalator stops completely. When the sensor senses the passenger, it accelerates to normal operation speed again at the speed of 30m/min.



30% Energy reduction

Stop standby operation OPTIONAL

If the passenger is not using the escalator, it stops completely. When the sensor senses the passenger, it accelerates to the normal operating speed again at the speed of 30m/min.



Method of comparing power consumption

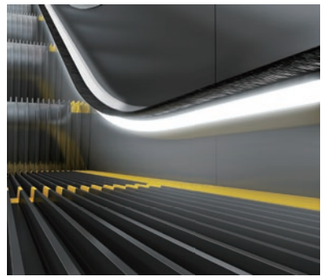
Comparison between escalator without inverter drive control and the escalator with the following function (standard escalator S1000 type, 30deg, floor height of 4.5m (no lightings), driving time of 12hours per one day.)

- Low-speed standby operation — Low-speed standby : six hours
- Low-speed / stop standby operation — Low-speed standby : three hours Stop standby : three hours
- Stop standby operation — Stop standby : six hours

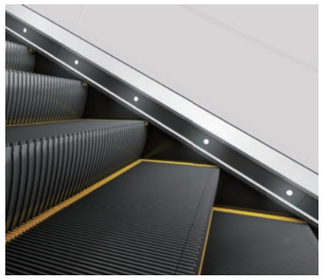
Application of LED lightings

LED lightings enables longer life span and more energy saving compared to the fluorescent lightings. Futurermore, it is environmentally friendly because there is no use of mercury.

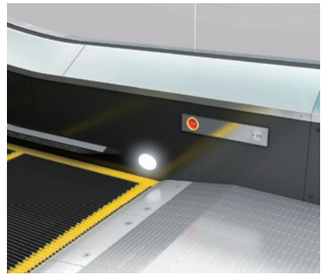
Skirt guard (line-type) lighting with LED OPTIONAL



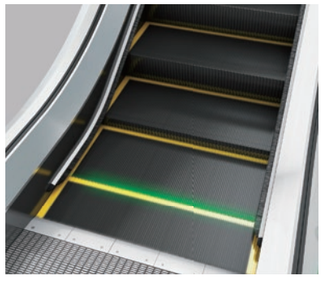
Skirt guard (circle-type) lightings with LED OPTIONAL



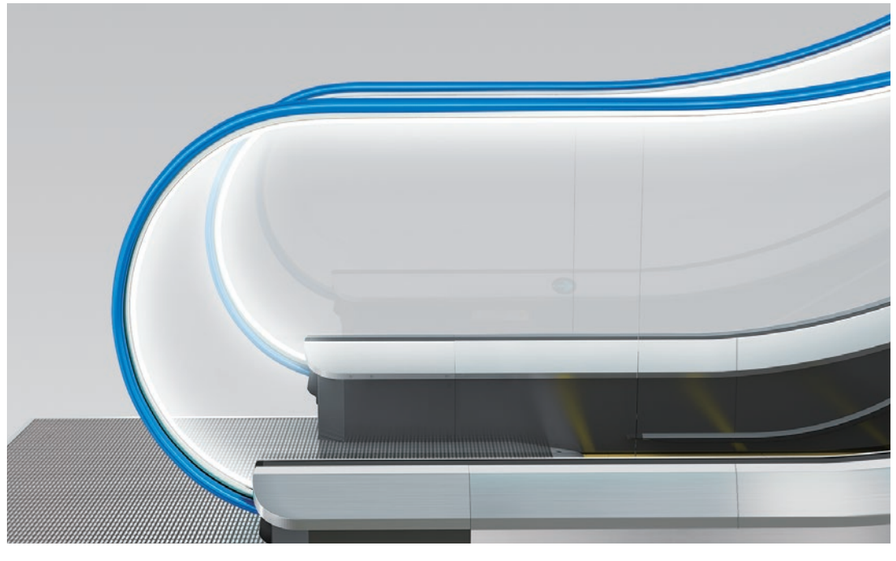
Comb lightings with LED OPTIONAL



Step demarcation lightings with LED OPTIONAL

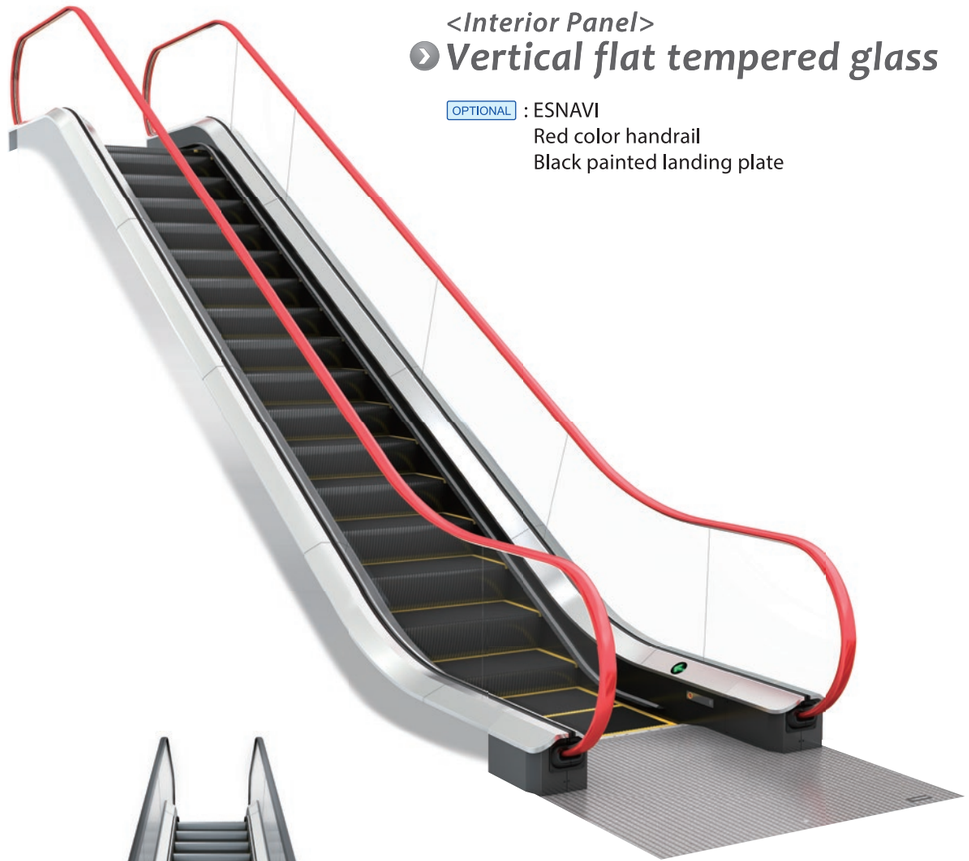


Balustrade lightings with LED OPTIONAL



VARIATIONS

Please select your best choice



<Interior Panel>

Vertical flat tempered glass

OPTIONAL : ESNAVI
Red color handrail
Black painted landing plate

<Interior Panel>

Stainless steel plate with hairline finish OPTIONAL

OPTIONAL : ESNAVI
Comb lightings with LED
Black painted landing plate

<Lighting>

Balustrade with LED lightings OPTIONAL

OPTIONAL : ESNAVI
Blue color handrail
Black painted landing plate

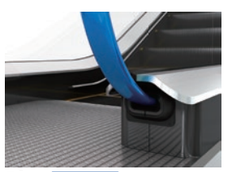
Handrail (Seven color variations)

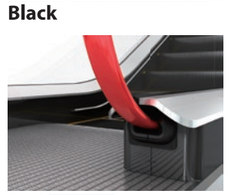
Selected the most suitable color from seven available color variations to match the building use and design concepts. *Black color : Standard *Other six colors : Optional


Black


Gray OPTIONAL


Brown OPTIONAL


Blue OPTIONAL


Red OPTIONAL


Orange OPTIONAL


Green OPTIONAL


• Seven colors

SPECIFICATIONS

Specifications

Basic Specifications

Type		S600 / S800 / S1000
Speed		0.5m / s
Inclination		30°/ 35° *
Power supply	For Main	AC 3-phase 380V-50/60Hz, 400/415V-50Hz
	For Lighting	AC single-phase 110/220V-60Hz, 220/230/240V-50Hz

*The maximum floor height for 35 deg. escalator is 6000mm

Exterior Specifications

Balustrade	Interior panel	Vertical flat tempered glass
	Deck board	Stainless steel plate with hairline finish
	Skirt guard panel	Sheet steel with fluororesin coating (black)
		Skirt deflector
	Handrail	Synthetic rubber (black)
	Front skirting	Sheet steel with fluororesin coating (black)
Step	Number of horizontal steps	2 steps*2
	Tread	Stainless steel (black)
	Riser	Stainless steel (black)
	Demarcation line	Synthetic resin molding (yellow)
Landing	Comb	Aluminum
	Landing plate	Stainless steel

*2 If the floor height exceeds 6000mm, number of horizontal steps will be 3 steps.

Optional Specifications

Skirt guard panel	Stainless steel plate with hairline finish
Comb	Synthetic resin molding (yellow)
Interior panel	Vertical stainless steel plate with hairline finish
Lighting	Balustrade lightings with LED
	Skirt guard lightings with LED (line / circle)
	Step demarcation lightings with LED
	Comb lightings with LED
Safety device	Skirt guard safety device
	Step up thrust safety device
Function	Low-speed standby operation, Low-speed / stop standby operation, Stop standby operation

Note : Above specification charts comply with GB16899-2011 standards

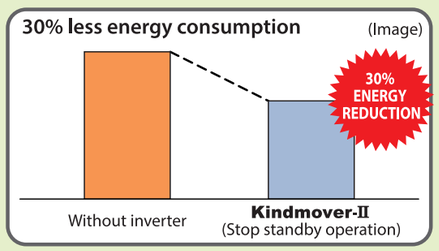
Environmental issues

Energy Saving

Stop standby operation

Stop standby operation is *30% less energy consumption compared to conventional model.

*Comparison between escalator without inverter drive control and the escalator with the following function (standard escalator S1000 type, 30deg, floor height of 4.5m (no lightings), driving time of 12hours per one day.)
stop standby operation stop standby : six hours.



Reducing hazardous materials

Lead-free design

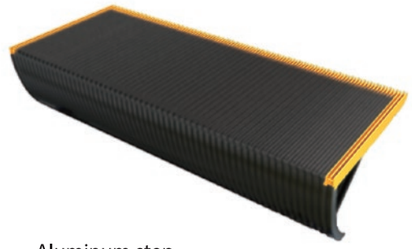
Reduction of lead use by employing lead free control board.

Employing LED lightings

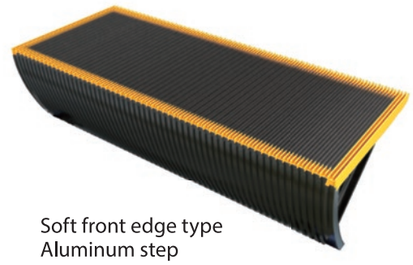
By employing LED light, various materials used for light become mercury free.

Other options

Step OPTIONAL

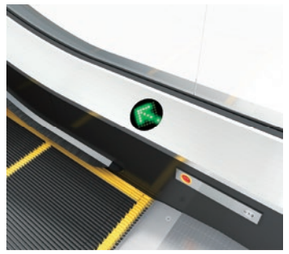


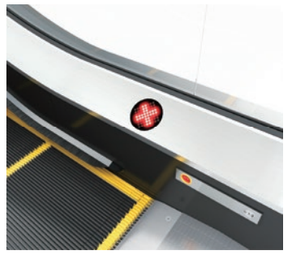
Aluminum step



Soft front edge type
Aluminum step

ESNAVI Escalator Operation Monitor for Passenger-Friendly Guidance OPTIONAL



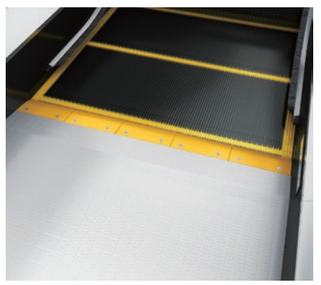


Operating direction

No entry

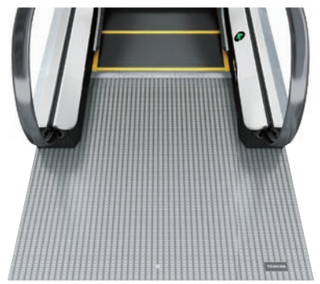
"Arrow signs" and "No entry symbols" displayed on the operation monitor indicate the escalator's operating direction to the passengers and provide passenger-friendly guidance.
Furthermore, when the safety device activates to stop escalators operation, the location of the activated safety device is shown on the operation monitor so that the maintenance staff can find the problem as quickly as possible.

Comb OPTIONAL



Synthetic resin molding (yellow)

Landing plate OPTIONAL



Black painted