

HITACHI



The information in this catalogue is subject to change without notice. The information and diagram in this catalogue reflect the technical features and configuration of the escalator model at press time (refer to the version number). In line with the principle of continuous development of products, our company reserves the right to change the selection of product technical parameters and color at any time. The existing image technology cannot accurately reproduce the escalator component structure and decoration color. Therefore, this catalogue only provides general information, not as a contract document. The specific configuration parameters are subject to the formal agreement. If you need detailed information, please contact us.



▼
Hitachi's brand-new TX series escalators materialize to its design concepts of Safety, Reliability, Comfort and Durability, and continue its commitment to environment-considered and energy-saving, as well as its pursuits of high quality, which provides efficient and convenient transportation solutions for buildings.

Note: CGs presented in this catalogue are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.

CONTENTS

Safe and Reliable	01-06
Efficiency and Energy-saving	07-10
Diversified Design	11-14
Product Specification	15-18



SAFE AND RELIABLE

Provide all-around protection for passengers.

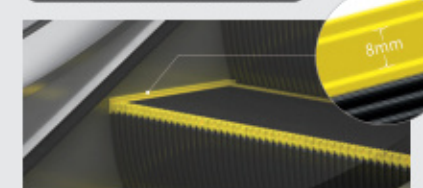
Hitachi's TX series escalators deliver safety and "human friendly", through continuous challenges and innovations, to improve the safety of the escalator comprehensively through various protective designs.

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.



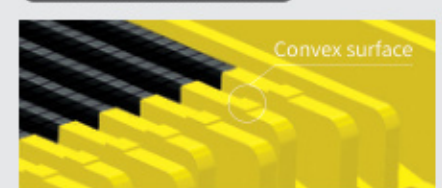
● Safety of Step

Standard (For Indoor Escalator)

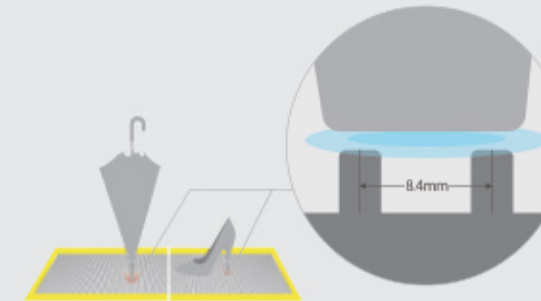


8mm raised cleats on both sides of step, unique four sides demarcation lines design effectively guide passenger onto the safe standing area to prevent entrapment.

Standard (For Indoor Escalator)



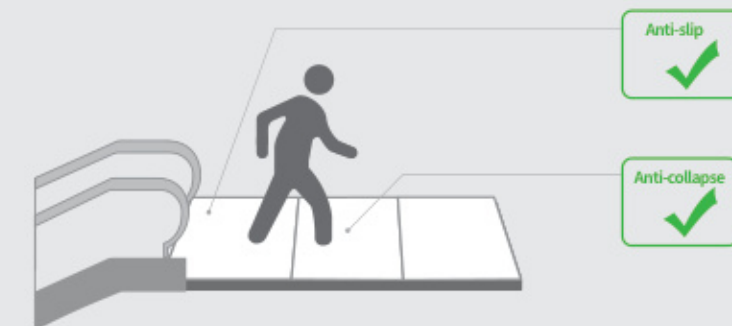
0.5mm convex surface on each stainless steel step the demarcation line area at the rear of each step, which enhance the passenger's touch feeling of stepping onto, to reduce the risks of slipping.



Standard

The safe tooth pitch of step cleat is **8.4mm**, effectively prevent the high-heeled shoes and umbrellas from being entrapped into its teeth.

● Safety of Landing Plate



Anti-Slip Standard

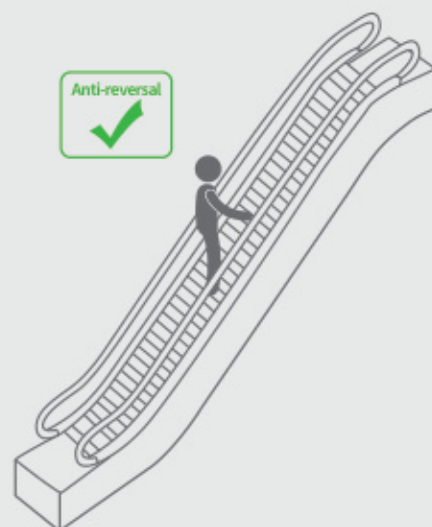
The anti-slip pattern meet the assessment group of **R10**, to effectively prevent the passengers from slipping. (Conforming to DIN51130 standard).

Anti-Collapse Standard

The embedded rectangular landing plate is fitted onto safe and reliable support structure, to avoid any shifting and falling of landing plate.

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.

● Safety Detection



Reversal Protection Standard

Emergency Braking Safety Gear can be provided for $H \leq 6m$ in addition to the main operation brake, for safe braking in the event of chain breakage.



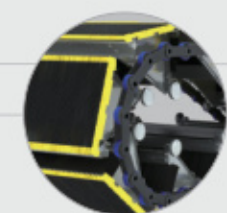
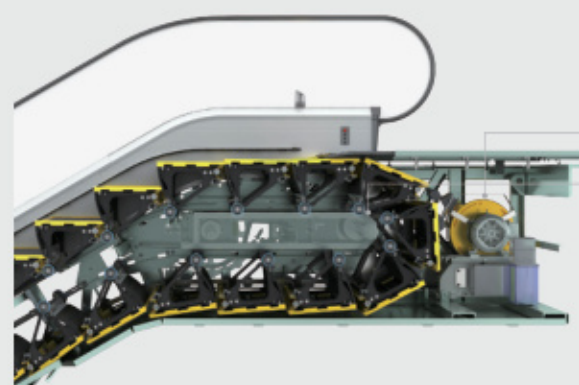
Area Safety Detection Optional

When the sensor detects passenger movement beyond the handrail, a voice announcement will alert the passenger.

*Note: Sensor is usually set up on one side where there is obstacle. In case of customer requesting to have sensor on both sides, please contact Hitachi.

Electronic Safety Monitor Standard

TX escalator entirely enhance the electronic system safety performance. By comparing the operating status of main **Machine** and **Step** which improve the redundancy detection, avoiding overspeed and reversal situation, the electronic safety integrity level achieve to SIL3 (higher than EN Standard of SIL2).



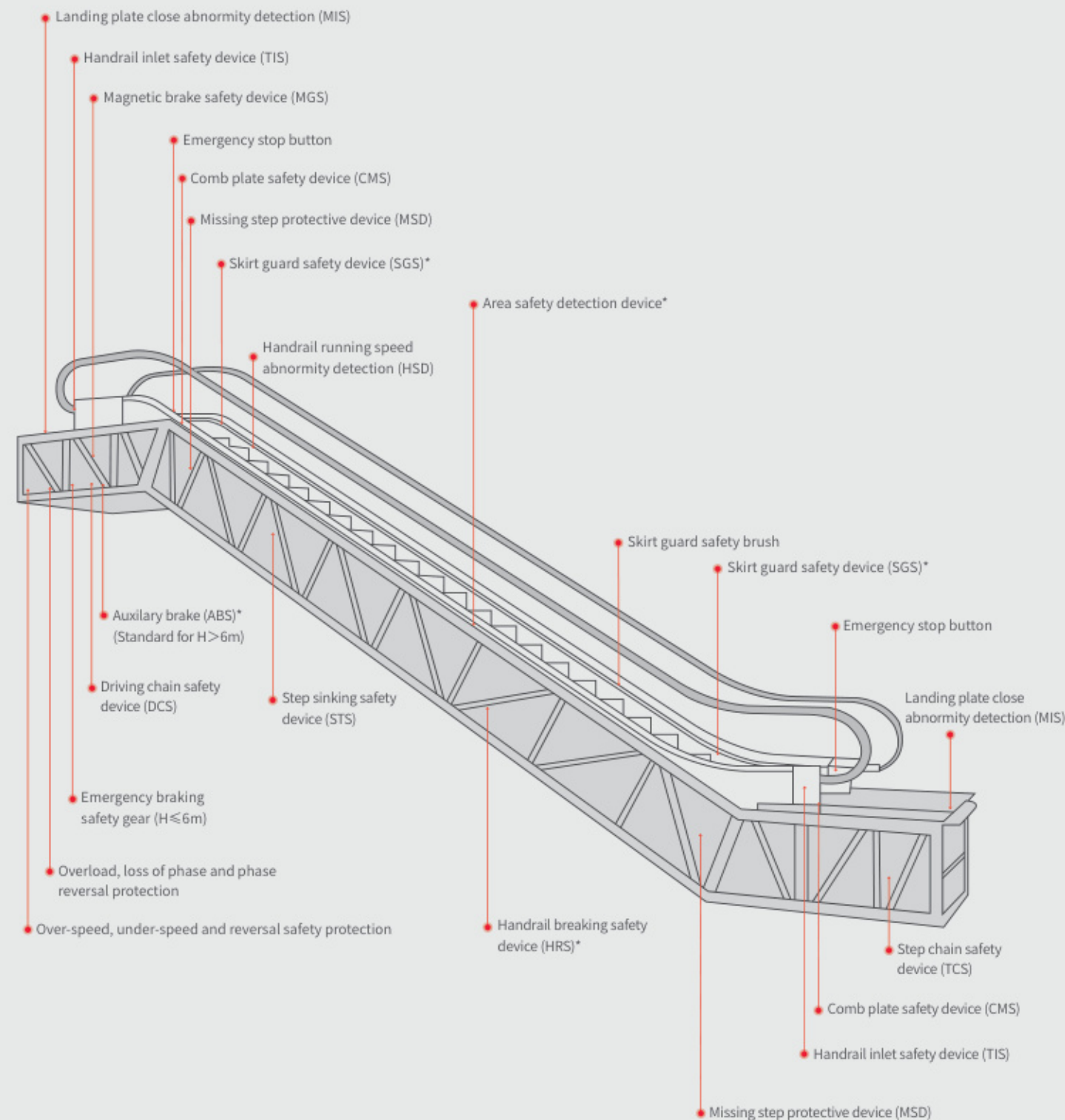
Step operation detection



Main machine operation detection

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.

● Full Range of Safety Protection Devices



*: Optional



EFFICIENCY AND ENERGY SAVING

Assist the environmentally conscious saving operation, energy-saving buildings.

Comprehensively improve the drive technology, to achieve better efficiency and energy saving; in addition, provide choices of operation modes according to passenger flow, to maximize customer's benefits .

Optional

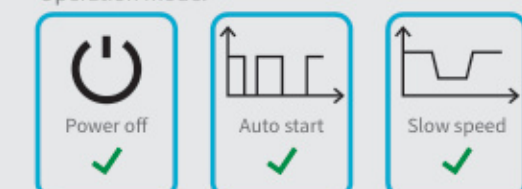
ENERGY ISO 25745-3:2015

Low energy consumption



High energy consumption

Operation mode:



Label No:10222225

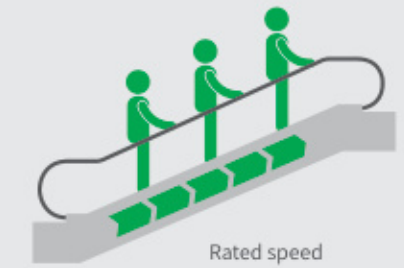
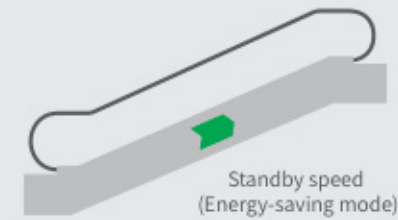
Valid until:12.03.2028

Hitachi TX Escalator satisfies Class A+++ , the highest level specified in ISO 25745-3 "Energy performance of lifts, escalators and moving walks -- Part 3" .

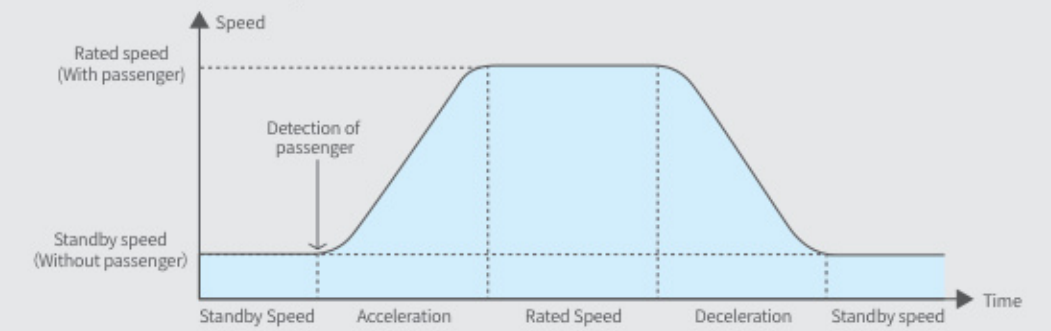


● Energy Saving Mode Optional

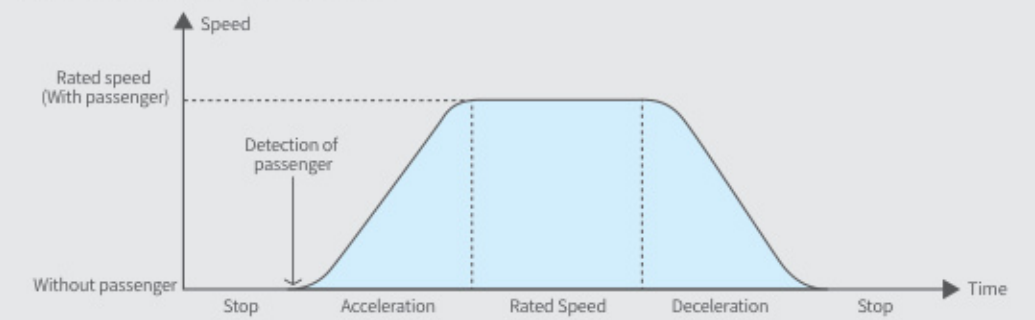
When the sensor detects no passenger for a predetermined period of time, the escalator automatically enters the energy-saving mode. When the sensor detects an approaching passenger, the escalator gradually accelerates to the rated speed.



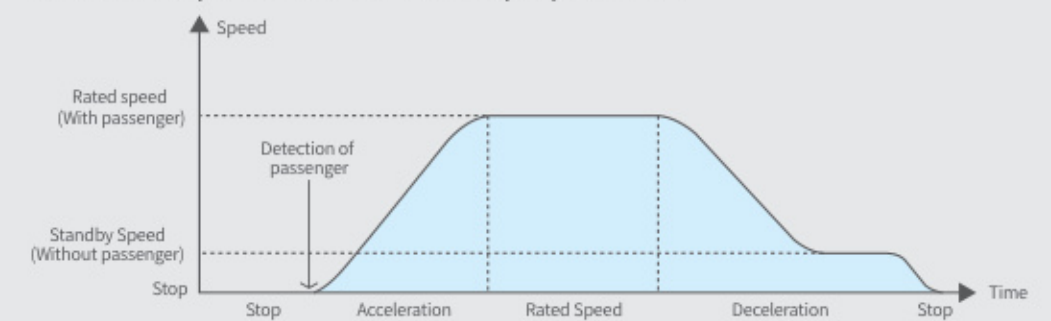
Auto dual speed operation



Auto start-stop operation



Auto dual speed + Auto start-stop operation



Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.



DIVERSIFIED DESIGN

Match perfectly with buildings.

Escalators are important features for building passenger traffic. The decorative configuration of escalator will affect the overall space architecture in the buildings. As for the upgrade of products, Hitachi promotes the diversified design, to adapt to the different decoration styles of shopping malls and buildings.

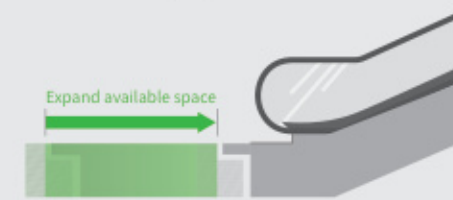
Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.



● Enhance the Space Utilization ● LED Lighting

Standard

TX series escalators brand new technological innovation optimizes truss structure size, saving additional space to be used for more valuable purposes for the customers.



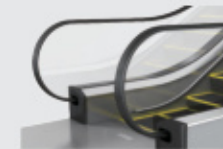
Optional



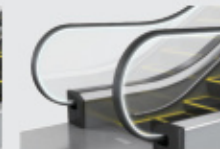
(LED color selection: white, green, red, blue and light-yellow)

● Balustrade Design

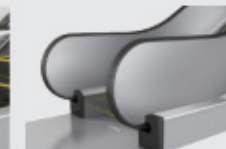
Simple appearance design of the balustrade, will naturally guide passengers to slip the handrail. Optional LED handrail lights will further enhance architecture design.



TX-EN Model
Transparent tempered glass



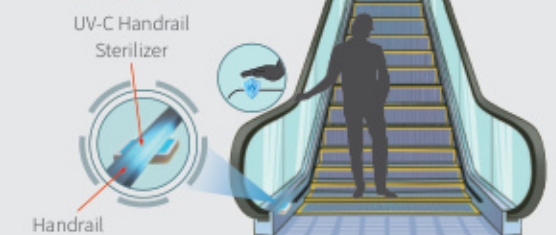
TX-L Model
Transparent tempered glass + handrail lighting



TX-P Model
Hairline stainless steel

● UV-C Handrail Sterilizer

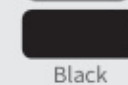
Optional



99.9% of the common bacteria on the handrail can be eliminated by ultraviolet irradiation

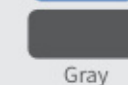
● Handrail Colors

Standard



Black

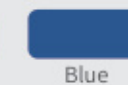
Optional



Gray



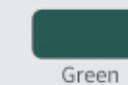
Red



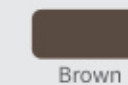
Blue



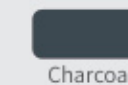
Beige



Green



Brown



Charcoal

Note: Printed color and actual color may differ slightly

● Step Design

Standard (For Indoor Escalator)



Stainless steel
Reinforced synthetic resin around 4 edges
(Fluorescent yellow)

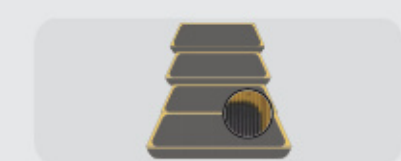
Optional (For Indoor Escalator)

Standard (For Outdoor Escalator)



Aluminum alloy
(3 edges yellow painting)

Optional (For Indoor and Outdoor Escalator)



Aluminum alloy
Round corners demarcation aluminum alloy step
(Reinforced synthetic resin around 4 edges)

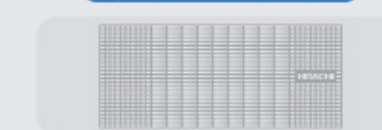
● Landing Plate Design

Standard (For Indoor and Outdoor Escalator)



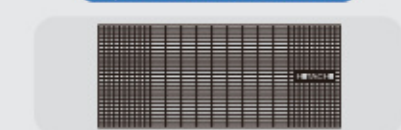
Aluminum without painting

Optional (For Indoor Escalator)



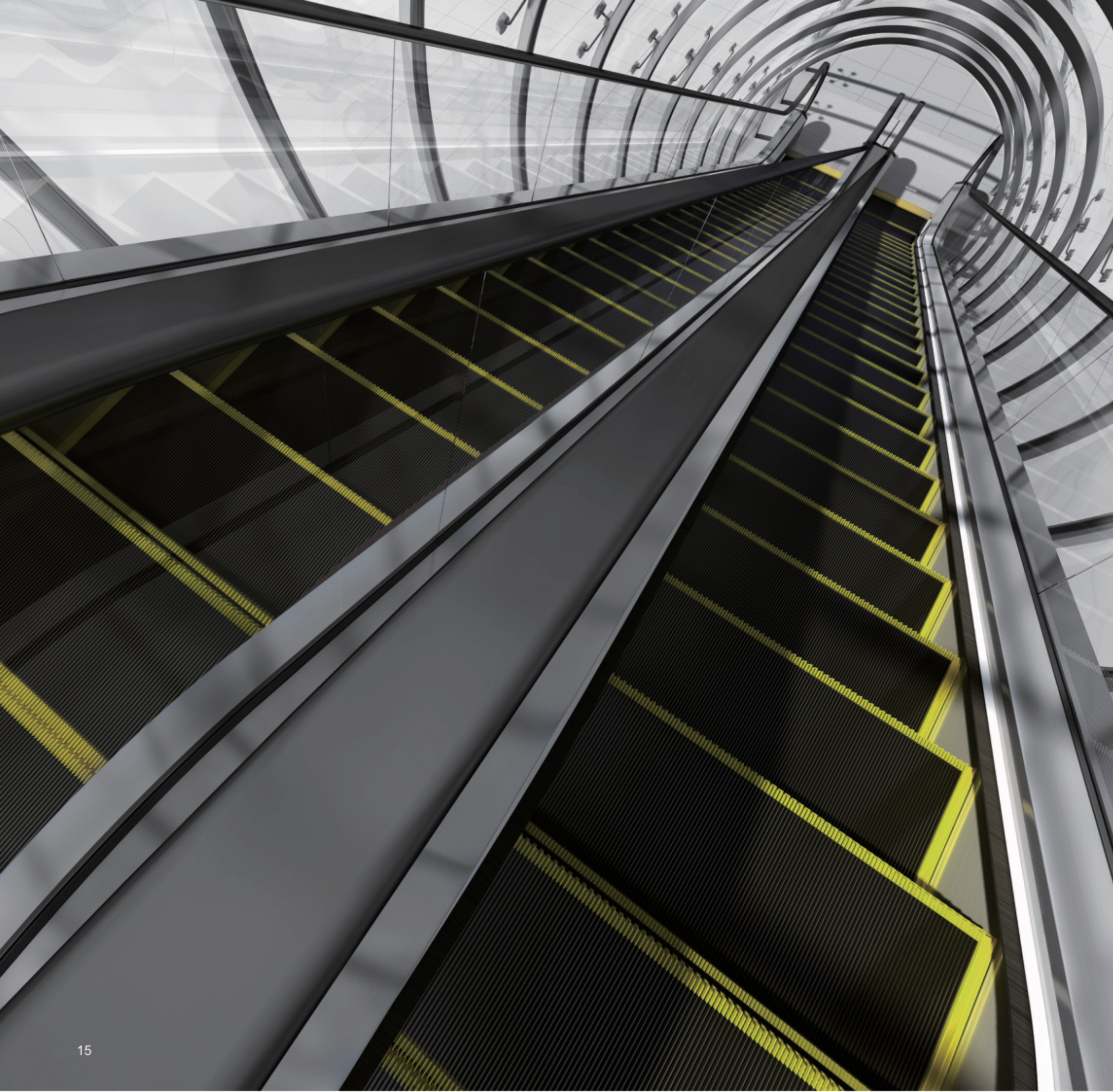
Stainless steel without painting

Optional (For Indoor Escalator)



Stainless steel with painting (black)

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.



PRODUCT SPECIFICATION

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.

Functional Configuration

	Function	Standard	Optional
Safety device	Step chain safety device (TCS)	✓	
	Driving chain safety device (DCS)	✓	
	Comb plate safety device (CMS)	✓	
	Handrail inlet safety device (TIS)	✓	
	Step sinking safety device (STS)	✓	
	Handrail running speed abnormality detection (HSD)	✓	
	Missing step protective device (MSD)	✓	
	Landing plate close abnormality detection (MIS)	✓	
	Magnetic brake safety device (MGS)	✓	
	Skirt guard safety brush	✓	
	Over-speed, under-speed and reversal safety protection	✓	
	Emergency stop button	✓	
	Overload, loss of phase and phase reversal protection	✓	
	Fault detection on important components of control panel	✓	
	Safe stopping distance detection	✓	
	Emergency braking safety gear	✓(H≤6m)	
	Protection against electrostatic loading	✓	
	Auxiliary brake (ABS)	✓(H>6m)	✓(H≤6m)
	Skirt guard safety device (SGS)		✓
	Handrail breaking safety device (HRS)		✓
	Area safety detection device		✓
Automatic running	Constant speed	✓	
	Auto dual speed		✓
	Auto start-stop		✓
	Auto dual speed + auto start-stop		✓
	Direction indicator (Inner deck/Outer deck)		✓
	Auto lubrication	✓ (Outdoor)	✓ (Indoor)
Fault handling	Fault alarm	✓	
	Fault recording	✓	
	Fault display at control panel		✓
	Fault display at skirt guard		✓
Monitoring	Dry contact interface		✓
Other functions	EN115-1:2008+A1:2010		✓
	Fire alarm, shutter gate, earthquake operation interface (when escalator receives signal, escalator stops)		✓
	Earthquake sensor		✓
	Automatic broadcast		✓
	UV-C handrail sterilizer		✓

Standard Specifications by Escalator Model

	1200 Type	1000 Type
Nominal width (mm)	1200	1000
Step width (mm)	1004	802
Maximum capacity (persons/h)	6000	4800
Rated speed (m/s)	0.5	
Angle of inclination	30°/35°	
Power supply	50/60Hz, AC 3-phase 220/230/380/400/415/440/460/480V, Single-phase 110/220/230/240V	
Motor	Three-phase AC induction motor	
Operation method	Key switch operation, reversible	
Operating environment	Indoor/Outdoor	

Name	Model	TX-EN	TX-L	TX-P
Balustrade	Standard	Interior panel	Transparent tempered glass	
		Handrail lighting	-	LED (White)
		Handrail	Polyurethane (Black)	
		Skirt guard	Indoor: Painted steel, Outdoor: Raw stainless steel	
		Inner and outer deck	Indoor: Painted steel, Outdoor: Hairline stainless steel	
	Optional	Skirt guard lighting	Hidden-type/Strip-type LED (White)	
Floor	Standard	Footlight	LED (White)	
		Comb	Reinforced synthetic resin (Fluorescent Yellow)	
		Comb plate	Aluminum alloy	
	Optional	Landing plate	Aluminum alloy	
Step	Standard	Comb lighting	LED (Green)	
		Step cleat and step riser	Indoor: Stainless steel, Outdoor: Aluminum alloy	
	Optional	Demarcation line	Indoor: 4 edges synthetic resin, Outdoor: 3 edges yellow painting	
		Demarcation lighting	LED (Green)	

Power Supply Source from Building 3-Phase/ Frequency	Model	Rise H (mm)	Escalator Motor Capacity (kW)	Control Panel Circuit Breaker Size (A)	Required Building Side Circuit Breaker		Required Building Side Transformer (kVA)	Minimum Section Area for GND (earthing) Wire (sqmm)
					Current (A) ^{*1}	Curve		
220V, 230V 50/60Hz	1000 Type	H ≤ 5500	5.5	32	≥ 40	D	12.5	4
		5500 < H ≤ 7500	7.5	32	≥ 50	D	16	8
		7500 < H ≤ 9500	11	40	≥ 63	D	18	10
380-415V, 440V, 460V, 480V 50/60Hz	1200 Type	H ≤ 4500	5.5	32	≥ 40	D	12.5	4
		4500 < H ≤ 6500	7.5	32	≥ 50	D	16	8
		6500 < H ≤ 9500	11	40	≥ 63	D	18	10
	1000 Type	H ≤ 5500	5.5	32	≥ 32	D	12.5	4
		5500 < H ≤ 7500	7.5	32	≥ 32	D	16	6
		7500 < H ≤ 9500	11	40	≥ 40	D	18	8
	1200 Type	H ≤ 4500	5.5	32	≥ 32	D	12.5	4
		4500 < H ≤ 6500	7.5	32	≥ 32	D	16	6
		6500 < H ≤ 9500	11	40	≥ 40	D	18	8

*1: Setting value of leakage current detector ≥ 300 (mA)

Escalator Planning Data for 30° Inclination Escalator

Applicable for Rise $H \leq 6000\text{mm}$

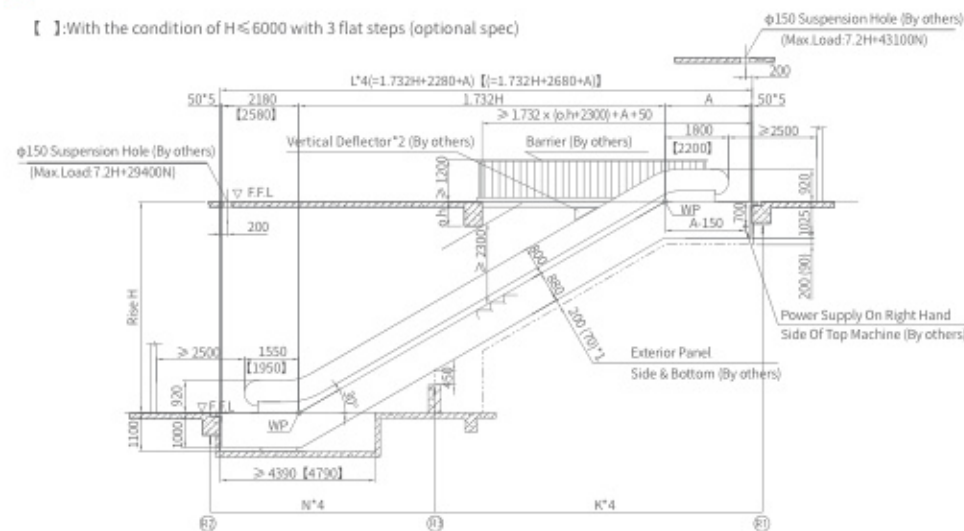
(Unit: mm)

Escalator Plan View

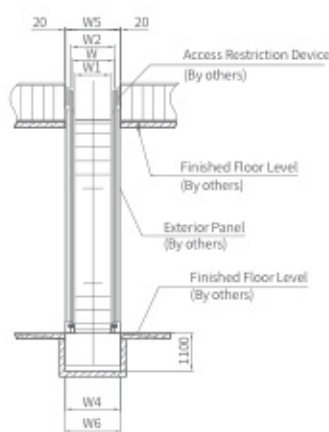


Escalator Side View

【 】: With the condition of $H \leq 6000$ with 3 flat steps (optional spec)



Escalator Front View



External Dimension (Length) (mm) $H \leq 9500\text{mm}$

Code	Type	Rise	No. of flat steps	A (mm)	
				380~415V 50/60Hz	220,230,440,460,480V 50/60Hz
GB16899-2011 / EN115-1:2008+A1:2010	1000Type 1200Type	$H \leq 6000$	2	2430	2830
			3	2830	3230
		$6000 < H \leq 7500$	3		
			3	2930	

Reaction Load (N) $H \leq 9500\text{mm}$

No.	Model	Rise H (mm)	Number of supporting beam	Number of flat step	R1	R2	R3	R4
1	1200 Type	$H \leq 9500$	2	2	$9.2H+35000$	$9.2H+28000$	-	-
2				3	$9.2H+38600$	$9.2H+31360$	-	-
3			3	2/3	$5.2K+14000$	$5.2N+4000$	$5.2(K+N)+5000$	-
4				2/3	$5.2K+14000$	$5.2M+4000$	$5.2(K+J)+5000$	$5.2(J+M)+2000$
5	1000 Type	$H \leq 9500$	2	2	$8.4H+33000$	$8.4H+26000$	-	-
6				3	$8.4H+36200$	$8.4H+28960$	-	-
7			3	2/3	$4.6K+14000$	$4.6N+4000$	$4.6(K+N)+5000$	-
8				2/3	$4.6K+14000$	$4.6M+4000$	$4.6(K+J)+5000$	$4.6(J+M)+2000$

Note: *1. If there is no other services (eg. lightings, sprinklers, etc.) to be installed between the truss and the exterior panel, this dimension is 70mm at the inclined section and 90mm at the horizontal section.

*2. When the distance between the center line of handrail and the escalator or any obstacle in the building is less than 500mm, vertical deflector without any sharp edges shall be installed at the intersection.

*3. Dimension of bearing plate for both ends: 150mm (W) \times 20mm (T) \times 1590mm (L) [1200 type]/1390mm (L) [1000 type].

*4. If L is more than 15102mm, an intermediate support beam is required. K, M, N, J \leq 15100 mm.

*5. The installation gaps between escalator and edge of building supporting beam at both upper and lower part must be within the range of 40~90mm.

Overall Dimension (Width) (mm) $H \leq 9500\text{mm}$

	1200 Type	1000 Type
W (Balustrade)	1226	1026
W1 (Step)	1004	802
W2 (Handrail)	1236	1036
W3 (Landing plate)	Standard	
	Option	
W4 (Truss)	$H \leq 6m$	1490
	$6m < H \leq 9.5m$	1550
W5 (Total width of escalator)	$H \leq 6m$	1460
	$6m < H \leq 9.5m$	1510
W6 (Min. pit/opening)	$H \leq 6m$	1490
	$6m < H \leq 9.5m$	1550

Escalator Planning Data for 30° Inclination Escalator

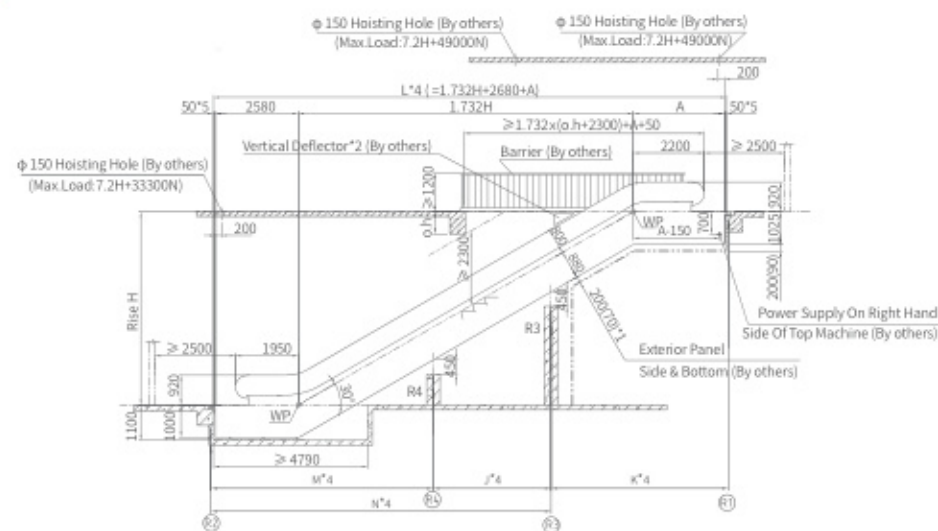
Applicable for Rise $6000\text{mm} < H \leq 9500\text{mm}$

(Unit: mm)

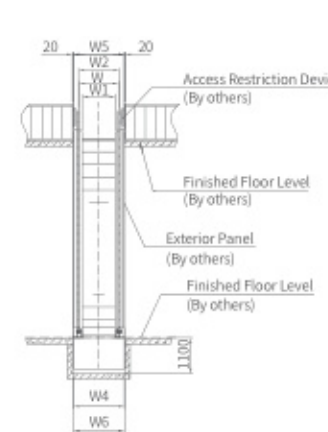
Escalator Plan View



Escalator Side View



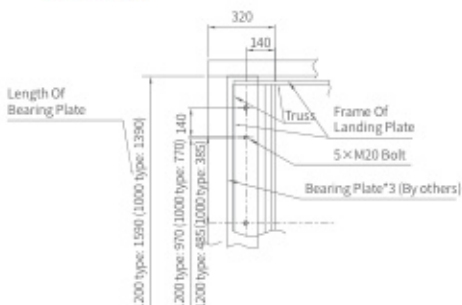
Escalator Front View



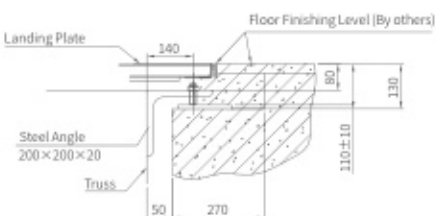
Intermediate Frame Supporting Beam Portion



Details of Supports on Both Ends



Frame Supporting Portion



Frame Supporting Portion

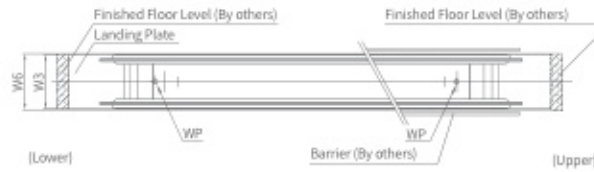


Escalator Planning Data for 35° Inclination Escalator

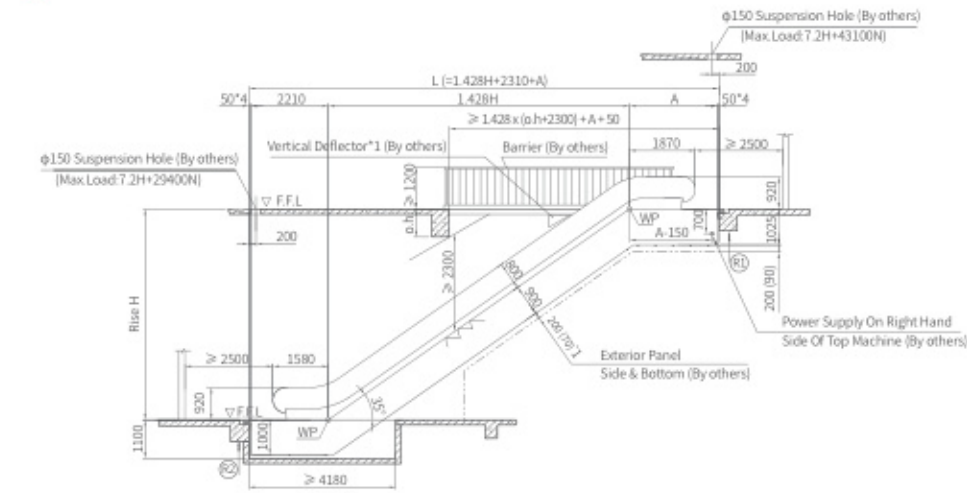
Applicable for Rise $H \leq 6000\text{mm}$

(Unit: mm)

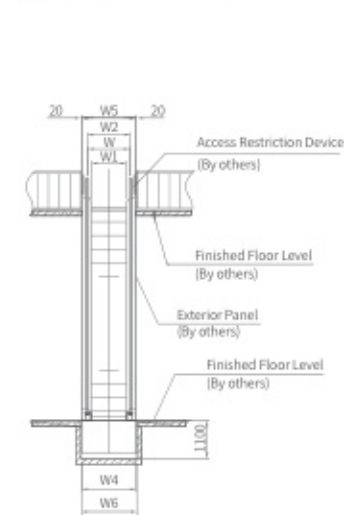
● Escalator Plan View



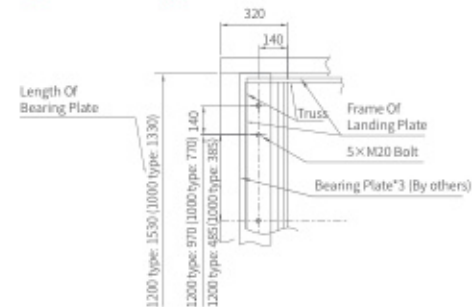
● Escalator Side View



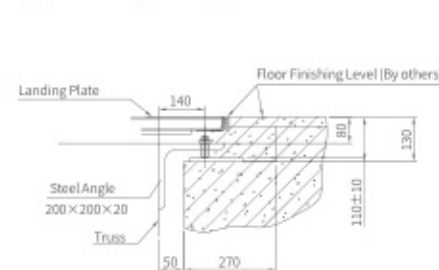
Escalator Front View



- Details of Supports on Both Ends



- **Frame Supporting Portion**



- **Frame Supporting Portion**



● Overall Dimension (Width) (mm)

	1200 Type	1000 Type
W (Balustrade)	1226	1026
W1 (Step)	1004	802
W2 (Handrail)	1236	1036
W3 (Landing plate)	1490	1290
W4 (Truss)	1460	1260
W5 (Total width of escalator)	1490	1290
W6 (Min.pit/opening)	1530	1330

Note: *1. If there is no other services (eg. lightings, sprinklers, etc.) to be installed between the truss and the exterior panel, this dimension is 70mm at the inclined section and 90mm at the horizontal section.

*2. When the distance between the center line of handrail and the escalator or any obstacle in the building is less than 500mm, vertical deflector without any sharp edges shall be installed at the intersection.

*3. Dimension of bearing plate for both ends:
150mm (W) × 20mm (T) × 1530mm (L) [1200 type]/1330mm (L) [1000 type].

*4. The installation gaps between escalator and edge of building supporting beam at both upper and lower part must be within the range of 40~90mm.

● External Dimension (Length) (mm)

Code	Type	Rise	No. of flat steps	A (mm)	
				380-415V 50/60Hz	220,230,440,460,480V 50/60Hz
GB16899-2011 / EN115-1:2008+A1:2010	1000Type 1200Type	H ≤ 6000	2	2500	2900

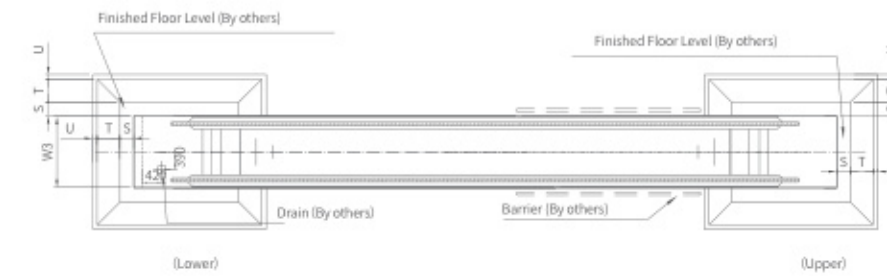
- Reaction Load (N)

Model	Rise H (mm)	No. of supporting point	R1	R2
1200 Type	H ≤ 6000	2	8.2H+36000	8.2H+28000
1000 Type			7.5H+33000	7.5H+26000

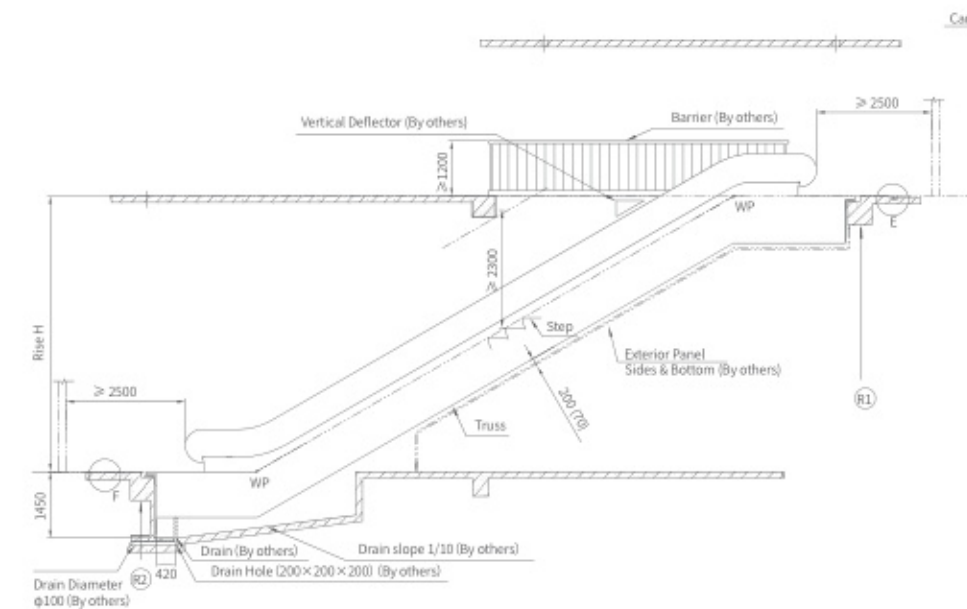
Architectural Requirement for Outdoor Escalator

(Unit: mm)

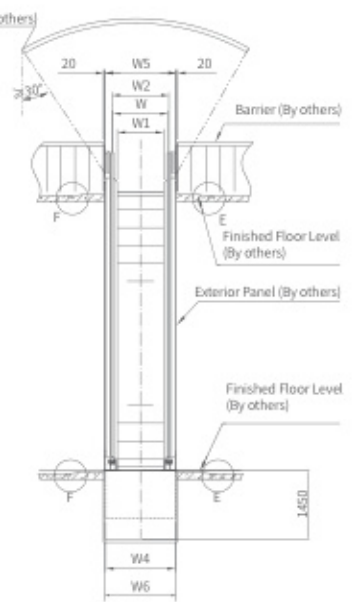
- Escalator Plan View



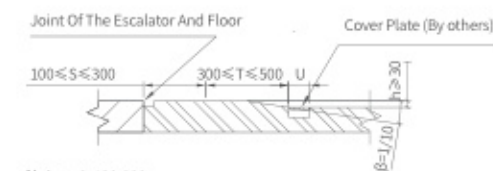
Escalator Side View



Escalator Front View



- Detail E (F and E are symmetric)



Note: S: 100-300mm.
T: 300-500mm (Slope 1/10).
U: Cutter (With Cover Plate).
Consumer should set the slope and gutter according to Detail E.



Work Done by Others for Escalators

● Construction Related Work (Supply and install)

Item	Work Description
1.	Opening of holes in floor slabs for installation use and recovery work.
2.	Installation of supporting beams for installation use.
3.	Opening of suspension holes in floor slabs or sleeve holes for carrying the escalator into place and performing recovery work.
4.	Lowest floor and escalator bottom pits and waterproofing work.
5.	Finishing work for floors and ceilings around the escalator after completion of escalator installation.
6.	Installation & finishing works to barrier and walls around the escalator.
7.	Exterior panels on escalator frame (truss).
8.	Installation of vertical deflector in places where the escalator and building ceiling or one escalator and another intersects.
9.	If the space between escalators is a stairwell, installation of intermediate down walls, ceilings, handrails, and advance prevention partitions.
10.	Joint work in places where the escalator and the building's ceiling border.
11.	Installation of fall protection nets, etc, if the space between the escalator and the building's floor is stairwell or the space between one escalator and another is a stairwell.
12.	Preparation of an entrance to carry in the escalator and perform recovery work if the escalator is to be installed in an existing building.
13.	Protection work around the escalator if the escalator is to be installed in an existing building.

● Electrical Equipment Related Work(Supply and install)

Item	Work Description
14.	Main power supply for the drive motor: lead-in up to the upper control board of the escalator.
15.	Power supply for inspection and maintenance : lead-in up to the upper control board of the escalator.
16.	Grounding wire: lead-in up to the upper power receiving panel of the escalator.
17.	Piping and wiring for the supervisory panel: lead-in from the installation area of the supervisory panel to the power receiving panel of the escalator.
18.	Selector switch and its installation for escalator bottom lighting.
19.	Installation of emergency lighting.
20.	Installation of sprinklers, broadcasting speakers, guide lights, etc.
21.	The intensity of illumination at the entrance and exit of escalator shall be at least 50 lux and 15 lux respectively.

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.