Hitachi Yungtay Elevator Co., Ltd.

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ISO9001

ISO14001

ISO45001

VDI 4707

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Catalog No.YT-EL-0171 | 2022.11

Machine Room Elevator
< Model HIT >

HITACHI
Inspire the Next

Hitachi Yungtay Elevator

Since its establishment in 1966,
Hitachi Yungtay Elevator (formerly Yungtay Engineering Co., Ltd.) has maintained close contact with Hitachi.
As a result, it has created a consistent design, sales, installation, and maintenance operation in Taiwan's elevator industry.

Hitachi Group's more than 50 years of technical support has accompanied Hitachi Yungtay Elevator step by step to grow and thrive; Hitachi Yungtay Elevator also provides the highest quality products with the concepts of "Advanced Technology," "Top Quality," and "Best Service."

In 2022, Hitachi Yungtay Elevator officially became a wholly-owned subsidiary of Hitachi Group. So, more advanced technology and better quality, let us witness together.

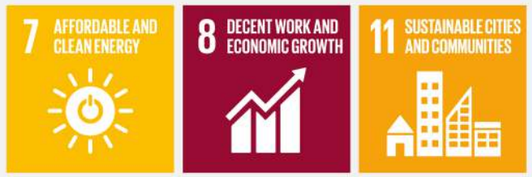
Advocate for Sustainable Development Goals (SDGs)

We are achieving the goal of a sustainable society and living in peace, security, and comfort.

Hitachi Elevator Systems contribute to SDGs* goals 7, 8, and 11.

*SDGs：17 sustainable development goals adopted by the United Nations.

- Reduce electricity consumption by updating building equipment such as elevators.
- Increase global employment by expanding global business.
- Create an environment where employees can work comfortably (work style reform).
- Provide customers with elevators that anyone, including the elderly, can move with peace of mind (barrier-free).
- Rapid recovery in the event of a disaster (improved earthquake safety).



In September 2015, world leaders adopted the 2030 Agenda for Sustainable Development at a historic UN summit. On January 1, 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development came into effect. Over the next fifteen years, as these new goals spread to all countries, countries will mobilize all forces to end poverty in all forms, defeat inequality, and curb climate change, all while ensuring that no one is left behind.

Environmental Management Program
Energy Saving and Carbon Reduction

Energy Resource management

Taoyuan Factory has started energy saving (power saving) carbon reduction projects since 2015:

2015 - 2018

The variable frequency air compressors replace the traditional air compressors.

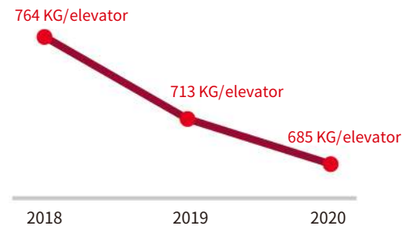
2019

Upgrade the manufacturing process to quadrangular folds to reduce spot welding.

2019 - 2021

Replaced the Mercury Lamp into LED lighting.

Carbon Emission (CE) Chart from Taoyuan Plant



The energy resource management plan reduces the average carbon emission per elevator production year by year.

Target to be carbon neutral by 2030.

Solar Power Project

- Install solar panels on the roofs of factories and office buildings.
- Set 340w*4,347pcs solar module.
- Annual power generation is 1,424 MWh/year.
- CO emission reduction is 725 t-CO /year.

Waste Management

Mainly include wood, sludge, dust collection ash, activated carbon, lubricating oil, domestic waste, waste plastic mixture, paint slag, and other business wastes, and control operations according to management measures.

Sort and store waste according to its chemical characteristics, and entrust qualified manufacturers to clean and recycle them.

Carbon Reduction Plans

Effect of energy saving implementation

The current annual electricity saving rate is about 1.5% to 2.0%, which is higher than the requirements of environmental protection regulations (which should reach more than 1%).

Industrial waste shall be controlled under management regulations.

Future carbon reduction goals

During the next two years, the average carbon emission per elevator produced yearly is expected to decrease by 12%.

Implementation items

- Carbon reduction: Adjust the air-conditioning equipment such as offices and conference rooms to an appropriate temperature (26~28°C); turn off lighting and air-conditioning facilities in unoccupied conference rooms and office spaces; office spaces throughout Taiwan complete replacement of LED power-saving lamps in between Electronic forms (paperless).
- Waste Reduction: Recycling packing containers: Change packing containers from wooden boxes to recyclable iron cages, which is expected to save 360 wooden boxes per year (30 per month).

※ Note：CO_2 emission reduction refers to "Contribution to social emission reduction."

Still in Art, Moving in Beauty

The beauty of craftsmanship and the aesthetic collection of elevator interiors

The craftsmanship certified by Hitachi, Ltd. with the highest quality with perfect ingenuity elevates the elevator into a work of art.

More advanced technology and perfect quality are our constant pursuit goals.

Car Design

Standard HIT-05

Front Wall	Transom : Bead Blasted Finished Stainless Steel Plate (anti-fingerprint, Aluminum Silver color) (2B-B-ED-01) Door : Steel Plate with Colored Pattern (A111)
Side Wall	Middle Plate : Steel Plate with Colored Pattern (A111) Side Plate : Steel Plate with Colored Pattern (SNP-2)
Rear Wall	Middle Plate : Stainless Steel with Mirror Finish Etching (HJ-666-3) Side Plate : Steel Plate with Colored Pattern (SNP-2)

Car Ceiling	Middle Plate : Steel Plate with Baked Painting (K182A) Side Plate : Steel Plate with Baked Painting (K181A)
Car Floor	: PVC Imitation Stone Floor Tiles (APG922)

Car Design

Optional HIT-06

Front Wall	Transom: Vibration finished Titanium Plates (SC-V-ED-01N) (anti-fingerprint, light Champagne Gold color) Door : Steel Plate with Colored Pattern (A111)
Side Wall	Middle Plate : Steel Plate with Colored Pattern (A111) Side Plate : Steel Plate with Colored Pattern (SNP-2)
Rear Wall	Middle Plate : Stainless Steel with Mirror Finish Etching (HJ-666-3) Side Plate : Steel Plate with Colored Pattern (SNP-2)

Car Ceiling	Middle Plate : Steel Plate with Baked Painting (K182A) Side Plate : Steel Plate with Baked Painting (K181A)
Car Floor	: PVC Imitation Stone Floor Tiles (APG922)

Car Design

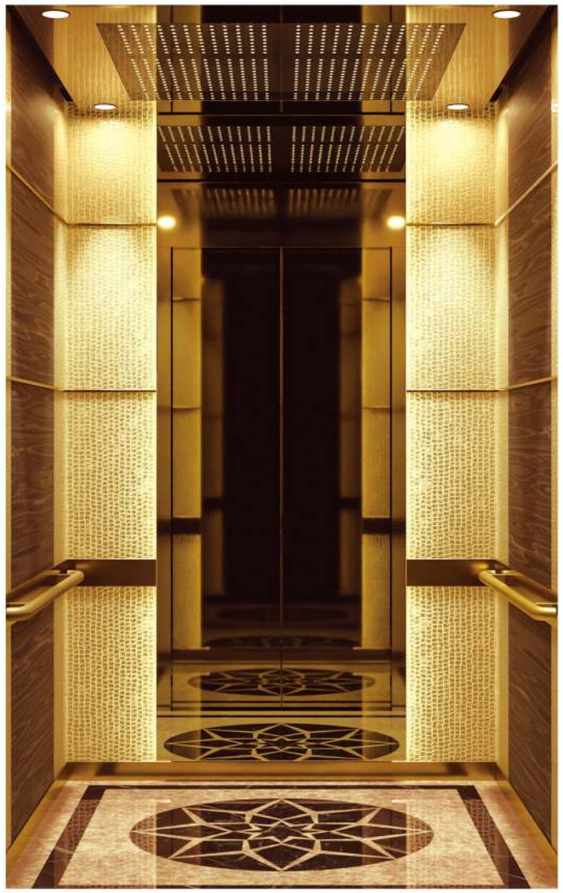
Optional HIT-02

Front Wall	Transom and Door	: Mirror finished Titanium Plates (TK-ED-011) (anti-fingerprint, Cocoa color)
Side Wall	Middle Plate : Brown color Mirror Side Plate : Bead Blasted Finished White Oak Veneer	
Rear Wall	Middle Plate : Walnut Grain Veneer TH5mm Mirror (Brown color) Bead Blasted Finished Titanium plates (TK-ED-113) (anti-fingerprint, Antique Gold color) Side Plate : Hairline finished Titanium plates (SC-H-ED-01) (anti-fingerprint, Light Champagne Gold color) Artificial Black Leather with Stitching	

Car Ceiling	Frame :	Bead Blasted Finished Titanium Plates (TK-ED-113) (anti-fingerprint, Antique Gold color)
	Lighting : Built-in Indirect Lighting	
Handrail	: Bead Blasted Finished Titanium Plates (TK-ED-113) (anti-fingerprint, Antique Gold color)	
Belt	: Bead Blasted Finished Titanium Plates (TK-ED-113) (anti-fingerprint, Antique Gold color)	
Car Floor	: Marble Mosaic	

Car Design

Optional HIT-03



Front Wall	Transom and Door	: Mirror finished Titanium plates (TK-ED-111) (Antique Gold color)
Side Wall		Middle Plate : Ebony grain Veneer Side Plate : Artificial Crocodile Leather (Champagne Gold)
Rear Wall		Middle Plate : TH5mm Mirror (Brown color) Side Plate : Artificial Crocodile Leather (Champagne Gold) Lighting : Built-in Indirect Lighting (Warm White)

Car Ceiling	Frame : Mirror finished Steel and Semi-transparent Mirrored Glass Inner Side: Mirror finished Titanium plates (TK-007) (Bronze color)
Handrail	: Bead Blasted finished Stainless Steel (2B-B-ED-01) (anti-fingerprint, Aluminum Silver color)
Belt	: Mirror finished Titanium plates (TK-007) (Bronze color)
Car Floor	: Marble Mosaic

Car Design

Optional HIT-04

Front Wall	Transom and Door	: Mirror finished Titanium plates (TK-ED-007) (anti-fingerprint, Antique Gold color)
Side Wall		Middle Plate : Ebony grain Veneer Decorative Strip : Mirror finished Stainless Steel
Rear Wall		Middle Plate : TH5mm Brown color Mirror Side Plate : Ebony grain Veneer Lighting : Built-in Indirect Lighting

Car Ceiling	Inner Frame : Steel Plate with Baked Painting (White) Circle Decorative Plate : White Acrylic Plate
Handrail	: Solid Clear Acrylic
Handrail Base	: Mirror Finished Stainless Steel Plate
Car Floor	: Marble Mosaic

Car Operating Panels / Buttons

Return Panel

Bead Blasted Finished Stainless Steel Plate (anti-fingerprint, Aluminum Silver color) — Standard

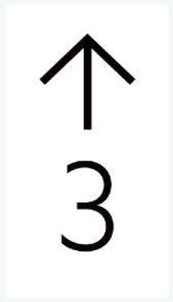
OPY-JL (7-inch LCD screen)

Vibration Finished Titanium Plates (anti-fingerprint, light Champagne Gold) — Option

OPY-JL (7-inch LCD screen)

7-inch LCD screen OPY-JL — Standard

LCD-WB White Background



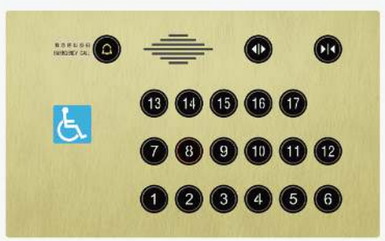
LCD-BW Black Background

Note: Color of background can be chose freely.

Panel for Wheelchair Use

W.OPB
Bead Blasted Finished Stainless Steel Plate (anti-fingerprint, Aluminum Silver color)
ϕ38mm Bead Blasted Finished Button (Stainless Steel, Aluminum Silver color) — Option

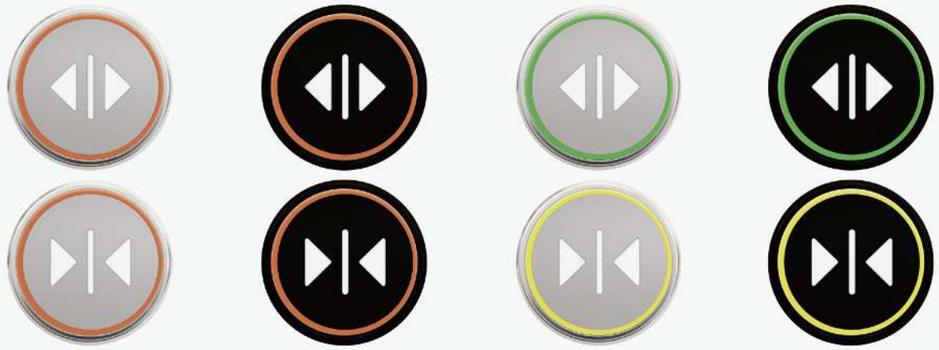
W.OPB
Vibration finished Titanium Plates (anti-fingerprint, light Champagne Gold)
ϕ38mm Bead Blasted Finished Button (Titanium, Black) — Option



Button in Car

Bead Blasted Finished (Stainless Steel, Aluminum Silver) BT-24112-O — Standard	Bead Blasted Finished (Titanium, Black) BT-24112-O — Option	Bead Blasted Finished (Stainless Steel, Aluminum Silver) BT-24110-X — Option (First Sale)	Bead Blasted Finished (Titanium, Black) BT-24110-X — Option (First Sale)
			
Diameter ϕ 38mm	Diameter ϕ 38mm	Diameter ϕ 38mm	Diameter ϕ 38mm
Glyph: Flat type White Acrylic	Glyph: Flat type White Acrylic	Glyph: Flat type White Acrylic	Glyph: Flat type White Acrylic
LED Color: Orange	LED Color: Orange	LED Color: Color can be assigned or randomly chahged	LED Color: Color can be assigned or randomly chahged

Open / Close door



Door hold

Emergency

Hall Operating Panels / Buttons

Incorporated type

Stainless Steel (Hairline Finished) Standard	Titanium-Black (Hairline Finished) Option	Stainless Steel (Hairline Finished) Option	Titanium-Black (Hairline Finished) Option
DIG-JD (Dot-matrix)	DIG-JD (Dot-matrix)	DIG-JL (4.3-inch LCD)	

Button in Car

Bead Blasted Finished (Stainless Steel, Aluminum Silver) Standard BT-24112-O	Bead Blasted Finished (Titanium, Black) Option BT-24112-O	Bead Blasted Finished (Stainless Steel, Aluminum Silver) Option (First Sale) BT-24110-X	Bead Blasted Finished (Titanium, Black) Option (First Sale) BT-24110-X
Diameter ϕ 38mm	Diameter ϕ 38mm	Diameter ϕ 38mm	Diameter ϕ 38mm
Glyph: Flat type White Acrylic	Glyph: Flat type White Acrylic	Glyph: Flat type White Acrylic	Glyph: Flat type White Acrylic
LED Color: Orange	LED Color: Orange	LED Color: Color can be assigned or randomly chahged	LED Color: Color can be assigned or randomly chahged

Incorporated type (for wheelchair use) Option

Stainless Steel (Hairline Finished)	Titanium-Black (Hairline Finished)	Stainless Steel (Hairline Finished)	Titanium-Black (Hairline Finished)
DIG-JD (Dot-matrix)		DIG-JL (4.3-inch LCD)	

Separate type Option

Stainless Steel (Hairline Finished)	Titanium-Black (Hairline Finished)
BL-J	

Separate type (for wheelchair use) Option

Stainless Steel (Hairline Finished)	Titanium-Black (Hairline Finished)
BL-J	

Hall Indicator / Hall Lantern/ Handrail

Hall Indicator

Option

HF-LM5 (dot-matrix display)
Faceplate: Hairline Finished Stainless Steel

HF-LM5L (LCD display)
Faceplate: Hairline Finished Stainless Steel

Hall Lantern

Option

L-52
(without faceplate)

L-63
(with stainless steel faceplate)

L-51
(without faceplate)

L-61
(with stainless steel faceplate)

Handrail

Option

NR-108

Material：Stainless Steel inlaid with Solid Wood (imitation walnut)
Diameter：38 Φ
Optional for Antibacterial Material

NR-112

Material：Stainless Steel inlaid with Solid Wood (imitation sen)
Diameter：38 Φ
Optional for Antibacterial Material

NR-125

Material：Stainless Steel inlaid with Genuine Leather
Diameter：38 Φ

NR-113

Material：Stainless Steel inlaid with Hairline Stainless Steel
Diameter：38 Φ

NR-6

Material：Mirror Finished Stainless Steel
Diameter：38 Φ

Note 1: Apply antibacterial and antifungal paint on the wooden surface of the handrail, using the Sanitized antibacterial mechanism to destroy the cell wall, inhibit the respiration of bacteria and hinder their nutrient acquisition.
Note 2: Antibacterial paint is only applicable to NR-108 and NR-112.

Entrance Design

Narrow Type

Standard

Door Panel	Center - Opening doors Steel plate with baked painting (J249)
Jamb Frame	Narrow type Hairline finished stainless steel
Door Sill	Extruded hard aluminum
Hall IND	DIG-JD

Narrow Type with Transom

Option

Door Panel	Center - Opening doors Steel plate with baked painting (J249)
Jamb Frame	Narrow type with transom Hairline finished stainless steel
Door Sill	Extruded hard aluminum
Hall IND	DIG-JL

Wide Type

Option

Door Panel	Center - Opening doors Steel plate with baked painting (J249)
Jamb Frame	Wide type Hairline finished stainless steel
Door Sill	Extruded hard aluminum
Hall IND	DIG-JL

Wide Type with Transom

Option

Door Panel	Center - Opening doors Steel plate with baked painting (J249)
Jamb Frame	Wide type with transom Hairline finished stainless steel
Door Sill	Extruded hard aluminum
Hall IND	DIG-JL

「 COMFORT 」

In the post-epidemic era, how to coexist with the virus is a common issue for humanity; providing a more comfortable and safe elevator environment simultaneously is the goal of Hitachi Yungtay Elevator's continuous efforts.

Automatically purify elevator air and keep it clean

Option

SHARP Professional Medical Plasmacluster Air Purifiers

Purifies the air while the elevator's fan is running.

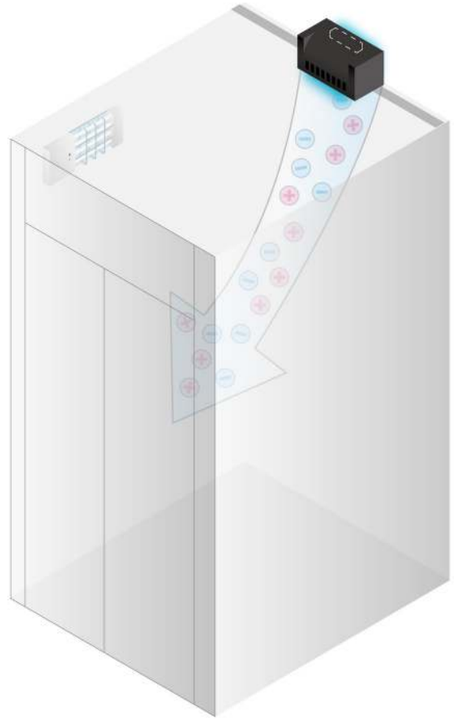
The purifier is installed on the top of the elevator car. With the fan's operation, the purifier synchronously releases many positive and negative ions in the elevator car to carry out global active sterilization.

The positive and negative ion air purification system can simultaneously release many positive and negative ions in the cabin for global active sterilization.

Positive and negative ions generate super-strong hydroxyl radicals, destroy the structure of bacteria, and effectively remove viruses, bacteria, molds, formaldehyde, and PM2.5.

It can also purify and decompose the bacteria proteins in the air and restore them to healthy water molecules to achieve the effects of air purification, sterilization, deodorization, and static elimination.

※ The cleaning device is consumable, and replacing it with a running time of 17,500 hours (about two years) is recommended.



Safe and intelligent switch on to remove residual germs

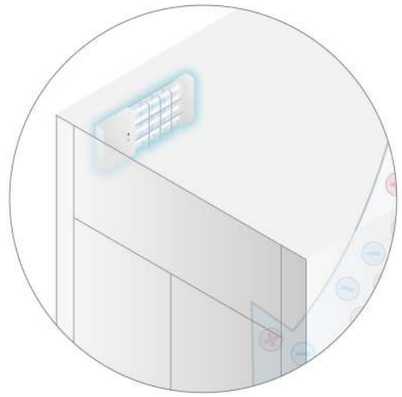
Option

UV Germicidal Lamp

The UV Germicidal Lamp equips with an intelligent sensor protection device, which automatically turns on the sterilization when the elevator is empty and stops immediately when someone walks in.

When the elevator car is in an empty state for 10 seconds, the UV germicidal lamp will automatically turn on the sterilization, effectively destroying the residual germs' cell structure and making them lose their activity and reproductive capacity.

The intensity of ultraviolet rays complies with national standards, and the disinfection and sterilization efficiency reaches 99%, allowing users to ride with peace of mind.



Take the elevator safely in the post-epidemic era

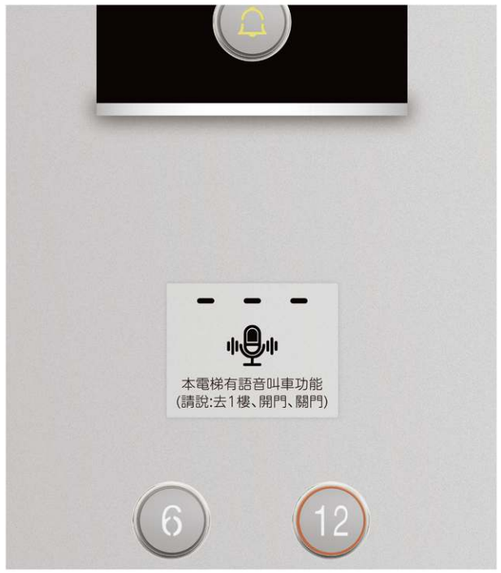
Option

Gesture Car-Calling

Passengers can wave their palms up or down before the induction device to log in and call a car. Passengers do not need to press elevator buttons, reducing the risk of germ infection and ensuring health.

※ Note: Barrier-free elevators are not suitable for non-contact products.

Voice Car-Calling



The voice-activated car calling device is installed in the elevator car. Passengers can voice control the elevator by saying specific voice keywords*.

※ Note: The system defaults to register floors B3~48.
※ Note*: The system default keywords are "open the door," "close the door," "go to the OO floor," and "go to the underground OO floor."

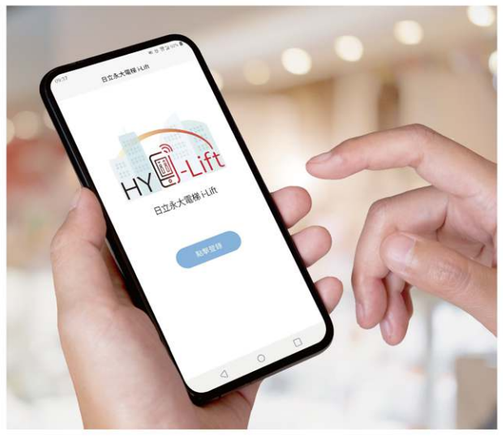
Use the mobile APP to call the elevator

Option

Smartphone Car-Calling

Use mobile devices such as smartphones and tablets to complete the identity verification and floor location of the building where you are. Then, log in to the departure and destination floors on the car-hailing page through the mobile car-calling APP.

Note: APP can be searched, downloaded, and install from APP Store and Google Play.
Note: An iBeacon Bluetooth base station needs to be installed on each floor (the detection range is about 10 meters).



Green energy elevator with energy saving and carbon reduction, uninterrupted power generation

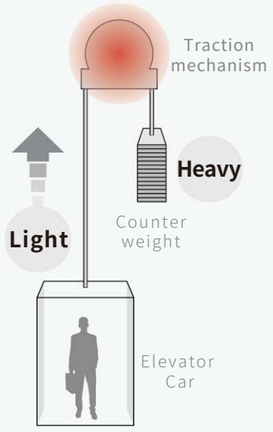
Option

Energy Feedback Device

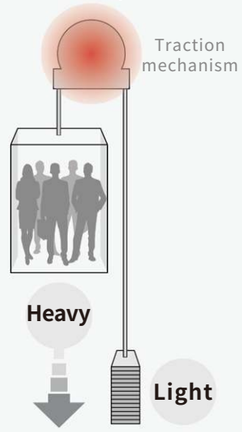
When the elevator without equipped with an energy feedback device, the electric energy generated during the light load travels up or the heavy load travels down will be dissipated in the form of heat energy in the resistance box of the equipment room.

This result in the temperature of the machine room rising and reduce the service life of the products in the machine room.

Travel up with light loaded

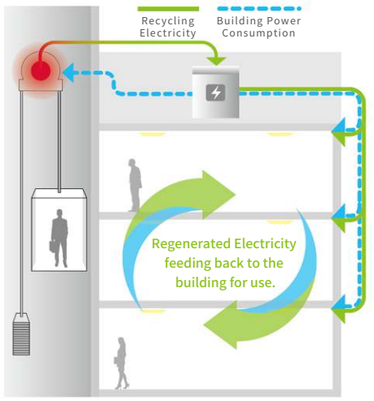


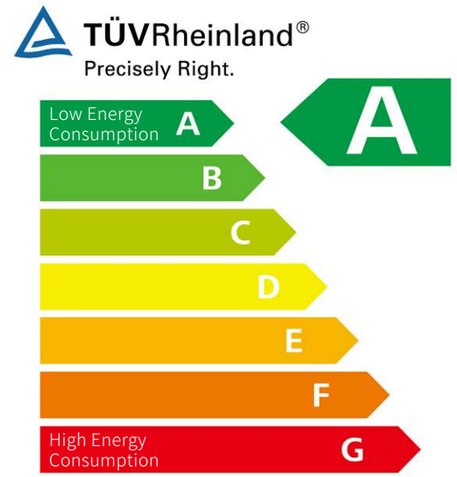
Travel down with heavy loaded



If the elevator equips with an energy feedback device, the electric energy generated during the elevator operation can be recovered and fed back to the power grid of the building for use by general daily electrical appliances, thereby reducing the overall energy consumption of the building.

The power saving rate varies according to site conditions; on average, it can save about 30% of energy consumption. In addition, the energy feedback device is also used with a permanent magnet motor, saving up to about 50% of the elevator energy consumption.





Elevator equipped with an energy feedback device has obtained the highest A-level certification of the new EU elevator green energy-saving efficiency mark [VDI 4707], which is in line with the trend of green elevator energy saving and the needs of the new generation.

※ Note: The energy feedback device does not require consumables such as batteries and is installed next to the control cabinet in the machine room.
※ Note: The power generation efficiency is the highest when no-load ascending or full-load descending, and power generation will also be performed in other operating states.

「Human-Machine Communication」

In the Internet of Things era, passengers communicate their needs for taking the elevator through various sensors. The elevator responds accurately and displays the current operating status through the screen —effective two-way communication between humans and machines.

Communication between elevators and people

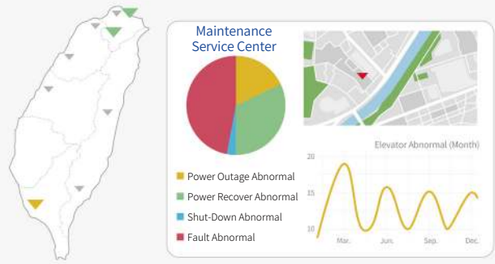
Option

Internet of things (IoT)

IoT Service collects, analyzes, and transmits elevator data through the cloud network to maximize the intelligence of the elevator system, achieving functions such as intelligent elevator monitoring, preventive maintenance, and instant rescue.

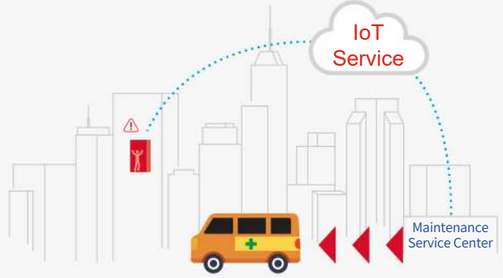
Intelligent Monitoring

Through the IoT service, the maintenance-service center can check the usage status and operation data of elevator components in real-time and arrange maintenance service personnel to deal with potential problems in advance effectively. As a result, it eliminates hidden dangers of safety accidents, reduces the failure rate of elevators, and upgrades from post-event rescue to pre-event prevention.



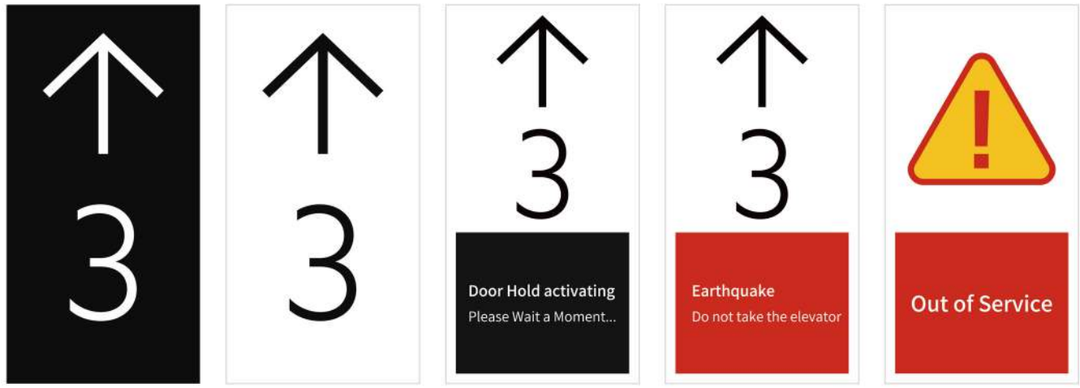
Instant Rescue

Through the IoT service, when an elevator accident occurs, the maintenance-service center can use the internet phone to contact passengers in the car, Inquire about the situation in the elevator, report the rescue progress to passengers in the elevator, and calm the passengers' emotions. Furthermore, through "Intelligent monitoring," the maintenance-service center can immediately know the damaged parts speed up the rescue progress, and ensure the safety of passengers.



LCD screen - real-time elevator status display

An optional 4.3-inch LCD screen for the hall operating panel displays the elevator's current operating status in real-time.



Black Background | White Background | Door Hold | Earthquake situation | Fire situation

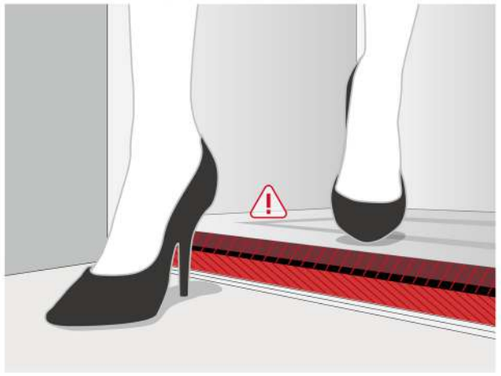
「Safety」

Transporting passenger safety to the destination floor is the basic mission of the elevator; taking into account safety and efficiency and pursuing higher quality is the original intention and goal of Hitachi Yungtay Elevator.

Exclusive elevator patent about safety riding

Standard

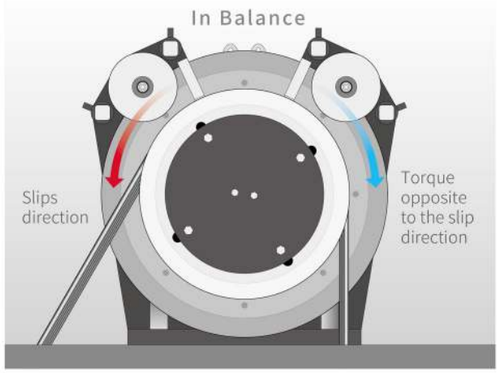
Self-rescue System for Car Slipping



The system monitors the car's status in real-time when the elevator stops at the door opening area. Suppose the system detects that the elevator abnormally slips. In that case, the traction machine will automatically and instantly output a torque opposite to the slip direction to firmly control the elevator in the door zone.

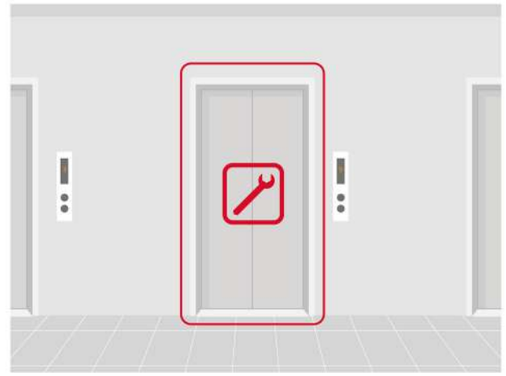
At the same time, the elevator automatically opens the door and plays a voice※1 to remind passengers to leave the elevator car as soon as possible to avoid accidents.

After the passengers leave the car, the elevator will automatically run to the top of the shaft, which is the safest position, and stop the passenger service. At the same time, through the IoT※2, the maintenance-service center will be automatically notified to arrange maintenance.



※1: Additional purchase of speech synthesis device is required.
※2: The elevator actively informs the maintenance-service center requires linkage with IoT function. Suppose the IoT function is not purchased. In that case, the safety procedures mentioned above will still be available, but in the end, the elevator will remain faulty and wait for maintenance.

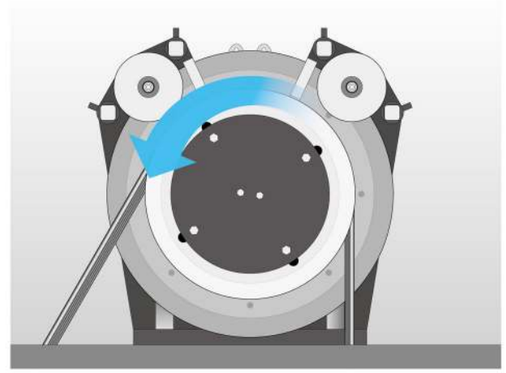
Brake Force Detection System



When the elevator car is vacant, the system will actively test the stability of the traction machine's braking force. During the detection process, the system applies large and small torques to the traction machine in stages.※1

During detection, the system applies a large torque to the motor. Suppose the traction machine rotates slightly, showing that the braking force is insufficient, but the elevator can continue to service within a safe range. At the same time, the system will generate a fault code to remind the maintenance engineer to prevent and maintain in advance.

The system applies a small torque to the motor in the next stage. If the traction machine still rotating, showing that the braking force is seriously insufficient, the system will stop service immediately. At the same time, the IoT※2 will automatically notify the maintenance-service center to send personnel for maintenance.



※1: The system tests braking force of the traction machine is scheduled to be tested once a day, and the test time is about 8 seconds.
※2: The elevator actively informs the maintenance-service center requires linkage with IoT function. Suppose the IoT function is not purchased. In that case, the safety procedures mentioned above will still be available, but in the end, the elevator will remain faulty and wait for maintenance.

Emergency power is supplied to the elevator host when a power failure occurs to avoid trapping passengers.

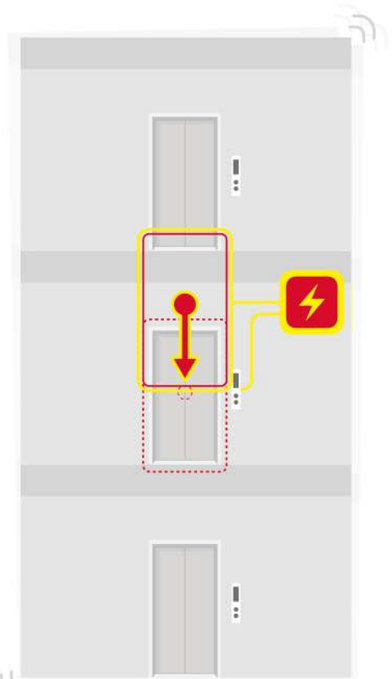
Option

Automatic Landing Device for Power Failure (ALP)

When the elevator has a power failure due to an earthquake or other unknown reasons, the ALP device can temporarily replace the regular power supply and emergency power supply to the elevator host.

The elevator can avoid shutdown due to sudden power failure and can automatically run to the nearest floor at a slow speed, allowing passengers to leave the car safely. After the power is restored, the elevator will automatically resume regular operation.

※ 1 : Depending on the elevator model, the emergency power provided by the ALP device lasts about 3 to 7 minutes.
※ 2 : Passengers in the car can still control the elevator door through the button on the car control panel.
※ 3 : During the activity of the ALP device, the lighting and air-conditioning fans in the car will continue to operate according to the general power supply conditions.
※ 4 : After the power is restored, the ALP device will automatically charge.



Automatically resumed regular operation after an earthquake, reducing the inconvenience.

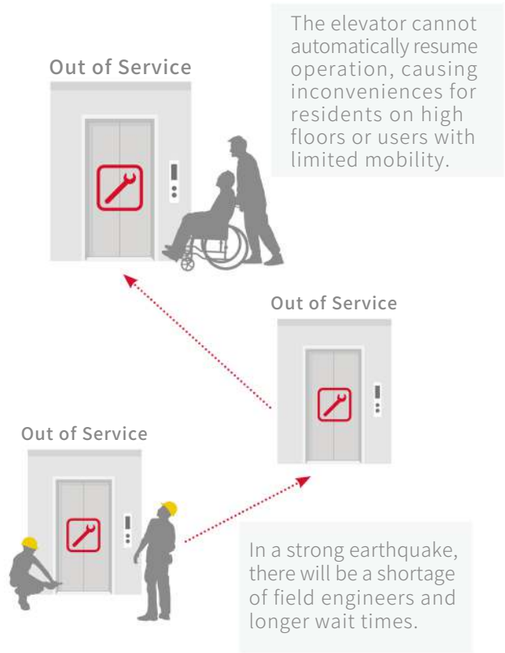
Option

Earthquake Emergency Operation

When an earthquake occurs, the Earthquake Emergency Operation system automatically switches the elevator to the control operation state. The running elevator will automatically stop at the nearest floor to open the door and enter the standby state. The system will clear all the registered car calls, and passengers will no longer be able to log in to request a car. At the same time, the car control panel and the hall control panel will display "Evacuate to Earthquake."

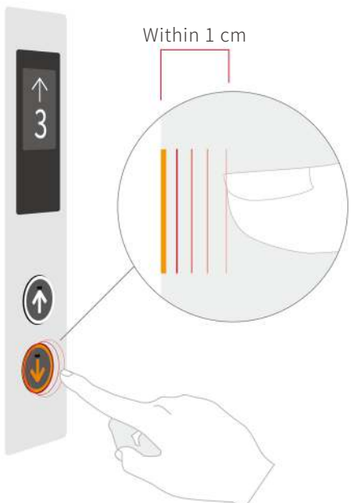
The system uses seismic sensors to assess the magnitude of earthquakes. When the earthquake intensity is below moderate[※1], the system will automatically resume regular operation 60 seconds after the end of the earthquake; however, if the earthquake intensity is above the strong[※2] quake, maintenance engineers are required to go to the site for inspection and recovery.

※ 1 : According to the earthquake intensity classification system of the Central Weather Bureau, MOTC., R.O.C., the earthquake intensity classification - moderate earthquake (4) is, PGA ground acceleration: 25~80 (cm/s2);
※ 2 : Strong earthquake (5 weak) is, PGA ground acceleration: 80~ 140(cm/s2).



Passengers need not touch the elevator buttons to avoid cross infection directly.

Option



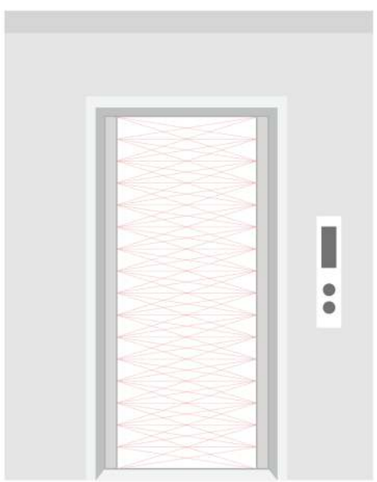
Non-Contact Button

When moving the finger toward the button within 1 cm, passengers can trigger the button signal to call a car by induction. As a result, passengers do not need to press buttons directly, reducing the risk of germ infection.

※ 1 : Available in two lighting colors – white and orange.
※ 2 : Barrier-free elevators are not suitable for non-contact products.

The staggered infrared induction beam reduces the accident of trapping people in the door.

Option



Mechanical door safety shoe and ultra-thin unique light curtain

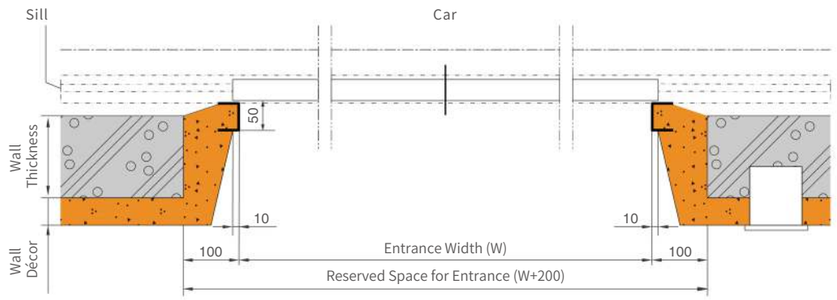
During the door-closing process of the elevator, if the person or object blocks the infrared rays emitted by the light curtain or collides with the safety shoes at the end of the elevator door, the elevator immediately stops and reopens the closing the door, which doubles the safety of passengers.

※ 1 : Suitable for side-open door and central-open door installation.
※ 2 : Keep the beam scanning crossing until the elevator doors are fully closed.

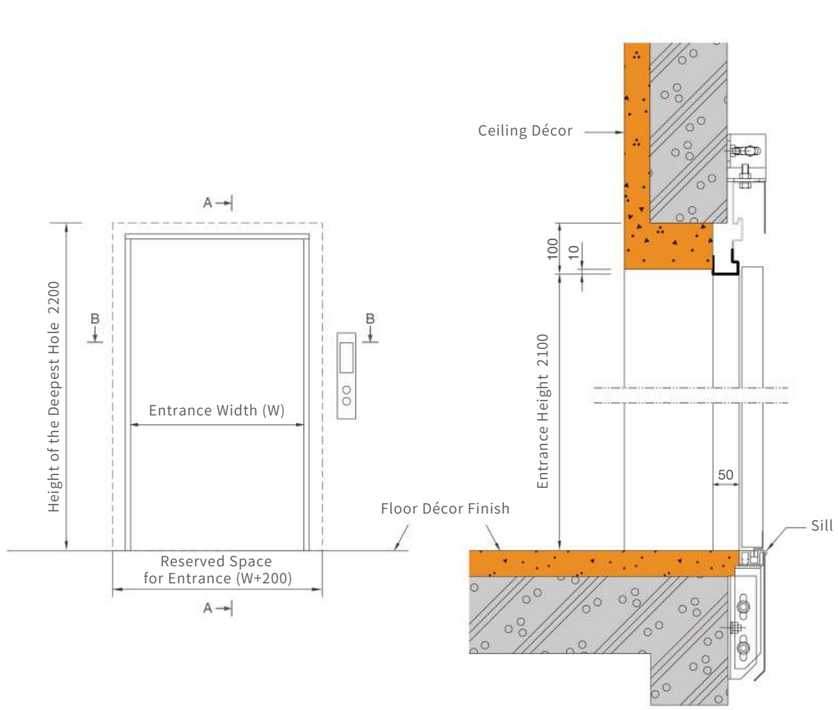
Dimensions of Entrance

Narrow-Type

Standard



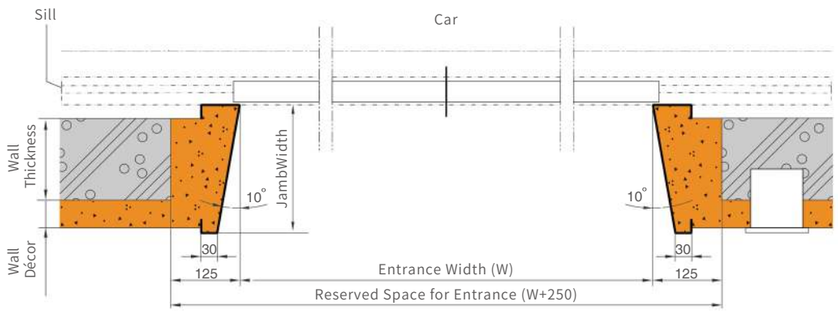
B-B Section



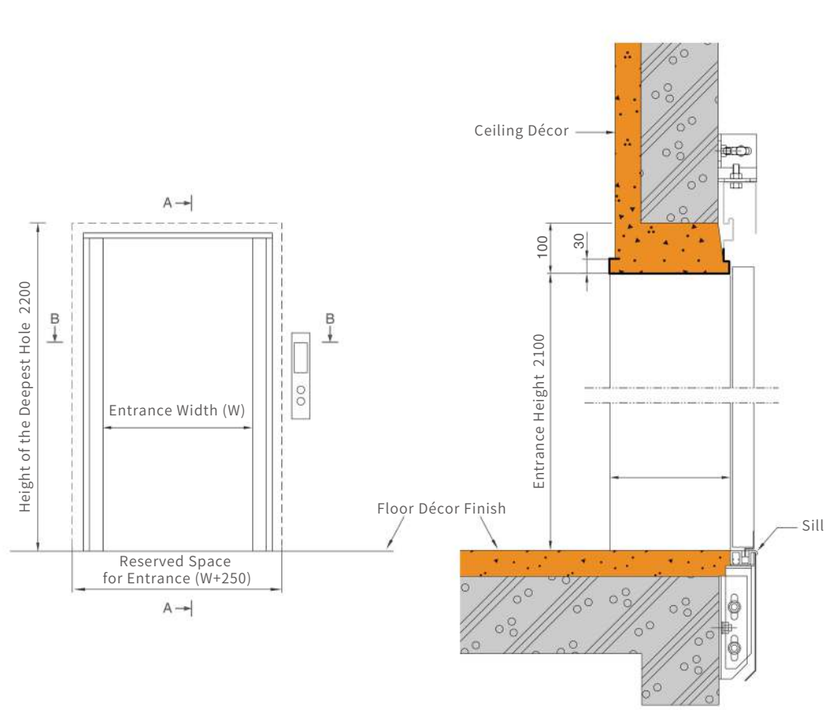
A-A Section

Wide-Oblique

Option



B-B Section



A-A Section

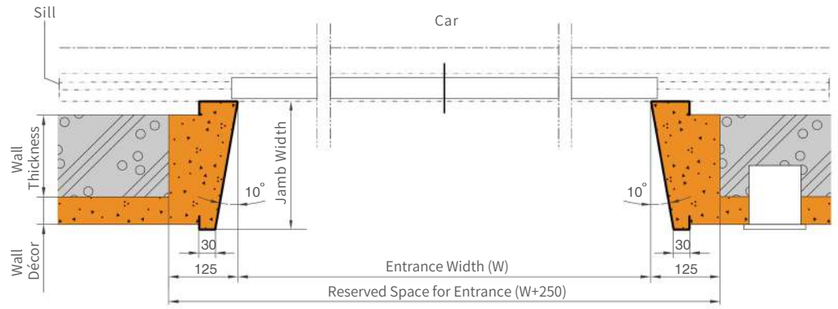
Wall and floor finishing (by other contractors)

Building structure (by other contractors)

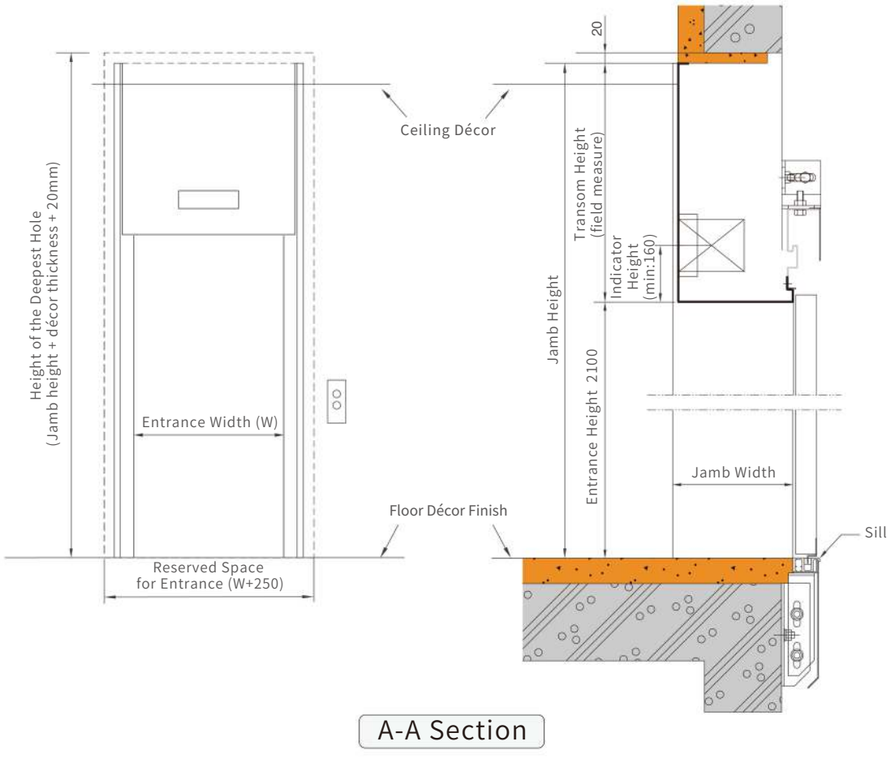
Entrance Dimension

Wide Type - with Transom

Option



B-B Section



A-A Section

Note :
1. If the transom is attached with a floor indicator, the minimum jamb height should be above 2450mm.
2. The height of the jamb is limited by the material, up to 3000mm.
3. The hole size for the hall indicators depends on the type of indicator.

Electrical Data

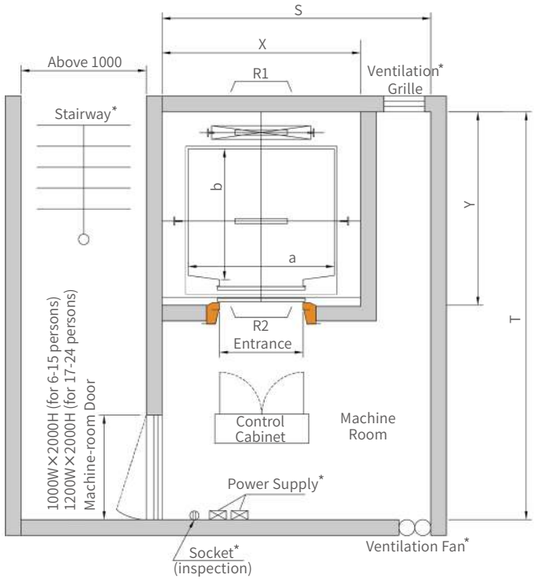
* Power Supply : AC 3Φ, 220V/380V, 60Hz

Passenger (KG)	Rated Speed (m/min)	Breaker Ampere(A) 220V/380V	Transformer capacity (KVA)	Wire Gauge Cross sectional area(mm^2) 220V/380V	Ground Wire Cross sectional area(mm^2) 220V/380V
6 (450)	60	30 / 20	4	14 / 5.5	5.5 / 2
8 (550)	60 90 105	40 / 20 40 / 20 50 / 30	4 6 6	14 / 5.5 14 / 5.5 14 / 5.5	5.5 / 2 5.5 / 2 5.5 / 2
9 (600)	60 90 105	40 / 20 40 / 20 50 / 30	4 6 6	14 / 5.5 14 / 5.5 14 / 5.5	5.5 / 2 5.5 / 2 5.5 / 2
10 (700)	60 90 105	40 / 20 50 / 30 50 / 30	5 6 7	14 / 5.5 14 / 5.5 14 / 5.5	5.5 / 2 5.5 / 2 5.5 / 2
11 (750)	60 90 105	40 / 20 50 / 30 50 / 30	5 6 7	14 / 5.5 14 / 5.5 14 / 5.5	5.5 / 2 5.5 / 2 5.5 / 2
12 (800)	60 90 105	40 / 20 50 / 30 60 / 40	6 7 8	14 / 5.5 22 / 14 22 / 14	5.5 / 2 5.5 / 5.5 5.5 / 5.5
13 (900)	60 90 105 120 150	40 / 20 40 / 20 50 / 30 50* 50*	6 7 8 15 17	14 / 5.5 22 / 14 22 / 14 14* 30*	5.5 / 2 5.5 / 5.5 5.5 / 5.5 5.5* 5.5*
15 (1000)	60 90 105 120 150	40 / 30 50 / 40 60 / 40 50* 60*	6 8 9 16 19	14 / 5.5 22 / 14 22 / 14 14* 30*	5.5 / 2 5.5 / 5.5 5.5 / 5.5 5.5* 5.5*
17 (1150)	60 90 105 120 150	40* 50* 50* 50* 60*	7 9 11 18 22	14* 14* 14* 30* 30*	5.5* 5.5* 5.5* 5.5* 5.5*
20 (1350)	60 90 105 120 150	40* 50* 50* 60* 75*	8 11 12 20 25	14* 14* 14* 22* 30*	5.5* 5.5* 5.5* 5.5* 5.5*
24 (1600)	60 90 105 120 150	50* 60* 60* 75* 100*	9 13 15 25 31	14* 22* 22* 38* 38*	5.5* 5.5* 5.5* 14* 14*

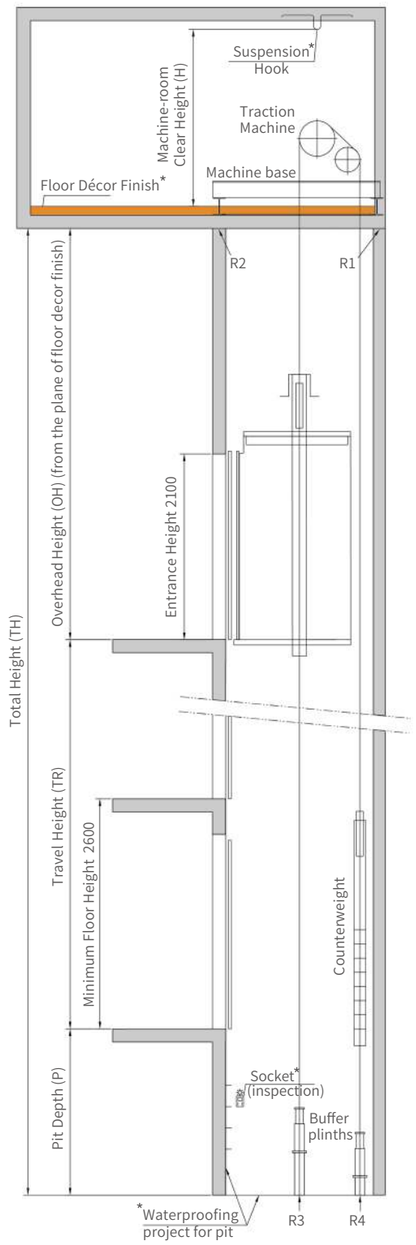
* The diameter of the wire is calculated based on the distance between the building's electrical substation and the elevator machine room within 50 meters.
* If the on-site power supply is 220V, an additional transformer for the elevator (220V→380V) must be added.

Hoistway and Machine Room

Hoistway and Machine room floor plan



Hoistway section



Wall and floor finishing (by other contractors)

Building structure (by other contractors)

Note :

1. The part marked with an asterisk is the excluded project, which is the owner's responsibility.
2. The Overhead Height (OH) and Pit Depth (P) listed in the graph are all 50mm larger than regulations.
3. The minimum height of each floor shall not be less than 2600mm.
4. The above regulations are for reference only. Please get in touch with our company for detailed specifications.

Machine-room dimensions of Clear height (H), Overhead height (OH), Pit Depth (P)								
Passenger	6-15	17-24	6-15	17-24	6-15	17-24	13-24	13-24
Speed (m/min)	60		90		105		120	150
Machine Room Clear Height (H)	2000		2200		2200		2200	2200
Overhead Height (OH)	4450	4850	4650	5050	4850	5250	5250	5450
Pit Depth (P)	1550		1850		2150		2150	2450

Note :

1. The overhead height (OH) dimension is based on the standard car ceiling height of 2300mm. Therefore, if the ceiling height increases, the OH dimension should be relatively increased.
2. If there are any problems, such as inconsistent size configuration or speed exceeding 150m/min, please contact our company.

Hoistway Dimension and Reaction Loading

Passenger (Load KG)	Speed (m/min)	Door Opening Width (mm)	Car Size axb (mm)	Hoistway (XxY) Machine Room (SxT) (mm)	Reaction Loading				Heat Output (Kcal/hr)
					Machine Room		Pit		
					R1(KG)	R2(KG)	R3(KG)	R4(KG)	
6 (450)	60	800	1400x850	1900x1450 (2400x3200)	3800	2400	4900	3800	668
8 (550)	60 90 105	800	1400x1030	1900x1630 (2400x3200)	3900	2700	5200 5500 6500	4000 4500 5200	808 1145 1305
9 (600)	60 90 105	800	1400x1100	1900x1700 (2400x3300)	4000	2800	5300 5750 6800	4100 4600 5400	847 1225 1404
10 (700)	60 90 105	800	1400x1250	1900x1850 (2400x3500)	4500	2800	6400 6400 7600	4400 5100 5900	947 1364 1563
11 (750)	60 90 105	800	1400x1350	1900x1950 (2400x3600)	4600	3000	6600 6800 7950	4500 5300 6200	1026 1483 1722
12 (800)	60 90 105	800	1400x1400	1900x2000 (2400x3600)	4900	3200	6800 7100 8300	4600 5500 6500	1145 1642 1881
13 (900)	60 90 105	900	1400x1400	2150x1950 (2700x3600)	5400	3200	7200 7650 10650	4900 5900 8400	1225 1742 2040
	120			2150x2050 (2700x3700)	6800	4300	11600	9400	2457
	150			2150x2100 (2700x3800)	7300	4600	11600	9400	3054
15 (1000)	60 90 105	900	1600x1500	2150x2100 (2700x3800)	5500	3500	9500 8300 9800	7200 6400 7500	1344 1941 2298
	120			2150x2200 (2700x3900)	6900	4700	10500	8000	2716
	150			2150x2250 (2700x3900)	7400	5000	12300	9800	3372
17 (1150)	60 90 105 120	1000	1600x1650	2300x2350 (2700x4000)	7900	4900	11200 9200 10700 12400	8600 7100 8200 9500	1603 2438 2835 3133
	150				8400	5200	13300	10500	3889
20 (1350)	60 90 105 120	1000	1800x1700	2450x2500 (3000x4200)	8300	5500	12600 10300 12000 13900	9600 7800 9100 10600	1941 2835 3292 3730
	150				8800	5800	14800	11500	4644
24 (1600)	60 90 105 120	1100	2000x1750	2650x2550 (3200x4300)	8900	6100	14100 11500 13400 15600	10500 8600 10000 11600	2294 3352 3889 4406
	150				9400	6300	16500	12500	5479

When the speed is 120 or 150m/min, the maximum number of floors to stop is 64; the maximum travel height is 120m, and the lowest floor height is 2600mm.
When the speed is 180, 210, or 240m/min, the maximum number of floors to stop is 64; the maximum travel height is 150m, and the lowest floor height is 2600mm.

Functions and Equipment

Energy Efficiency

		Standard	Option
Car Call Cancellation	Deregister a mistaken floor by pressing the same floor button twice within 3 seconds.	●	—
Nuisance Call Cancellation	When the car is vacant, but multiple floor buttons on the operation panel are still registered with signals, the microcomputer system will automatically detect this abnormal state and cancel the registered to save energy.	●	—
Car Call Cancellation at Reversal	When the elevator changes direction, the system will cancel the previously registered floor, which can avoid invalid stops and save electricity.	●	—
LED Lighting	Greenlight sources with high efficiency, energy saving, environmental protection, low carbon emission, safety, and durability are applied to replace traditional lighting to save energy consumption.	●	—
Energy Saving for Floor Indicator	The floor displayer's brightness will decrease to one-third of the regular level to reduce energy consumption when the elevator has been idle for a while.	●	—
Energy Saving Function	The car lighting and fans will stop running to save energy when the car is vacant for a while and will restart running if there is any calling from other floors.	●	—
Destination Dispatch	Log in to the destination floor before boarding the elevator, and distribute the passengers to each elevator through AI computing distribution, reduce the number of elevator stops, improve operation efficiency, and shorten the waiting time of passengers. (This function can also link with the access control system)	—	●
Duplex Selective Collective Operation	Two elevators can be linked for the group control operation.	—	●
FT3X Group Control	In each car call from the hall, according to the relative position of each elevator and the registered car-calling signal, calculate the optimal dispatching arrangement, reducing the overall average waiting time and the probability of passengers waiting for a long time.	—	●
Energy Feedback Device	The regenerative power generated by the Energy Feedback Device can feed back to the building power grid to supply electricity for the building when the elevator runs in light-load upward or heavy-load downward. In addition, the device can return clean electric energy to achieve green energy-saving benefits.。	—	●
Automatic Bypass Operation (Fully-Loaded Car)	When the elevator car is fully loaded, it will change to an auto-bypass state, executing the car calls only but ignoring the hall calls to improve efficiency.	—	●

Preventive Maintenance

		Standard	Option
Internet of Things (IoT)	IoT collects, analyzes, and utilizes elevator data through the network to optimize the intelligent elevator system and achieve the elevator functions of intelligent monitoring, preventive maintenance, and instant rescue.	—	●

Artificial Intelligence

		Standard	Option
Face Recognition	After confirming the passenger's identity through the facial recognition system, the right to register the floor is granted, or the system can directly register to the preset destination floor. The system can also combine with the Destination Dispatch system to guide the identified passenger to the designated elevator. (The owner provides the face recognition machine, and Hitachi Yungtay Elevator provides the communication interface)	—	●
Voice Car-Calling	Passengers can register the destination floor in the car by voice, replacing the traditional touch button, reducing the risk of germ transmission.	—	●
People Flow Control	The system can automatically detect the number of people waiting in the hall. The intelligent group control dispatching system can flexibly increase the number of service elevators, which can instantly evacuate the crowd and shorten passengers' waiting and boarding time.	—	●
Smartphone Car-Calling	It uses the APP and BlueTooth from a smartphone or tablet to accurately locate the floor and quickly complete the elevator call and the destination floor registration.	—	●
Destination Dispatch	Log in to the destination floor before boarding the elevator, and distribute the passengers to each elevator through AI computing distribution, reduce the number of elevator stops, improve operation efficiency, and shorten the waiting time of passengers. (This function can also link with the access control system)	—	●
FT3X Group Control	In each car call from the hall, according to the relative position of each elevator and the registered car-calling signal, calculate the optimal dispatching arrangement, reducing the overall average waiting time and the probability of passengers waiting for a long time.	—	●

Safety

		Standard	Option
Braking Force Detection System	Safety technology invention patent. The braking force detection of the elevator motor is automatically performed daily on a preset schedule. When the braking force becomes weakened, a warning code will be issued to notify the maintenance personnel to take preventive measures. Furthermore, suppose the braking force is insufficient, the elevator will stop service and generate a fault code for the maintenance personnel to troubleshoot to ensure the brakes' reliability and effectiveness.	●	—
Unintended Car Movement Protection (UCMP)	When the elevator door is opened for passengers to enter and exit, the brakes are immediately activated to stop the elevator service once the elevator moves unexpectedly. The elevator will resume regular operation only after maintenance and inspection by professionals.	●	—
Ascending Car Overspeed Protection (ACOP)	When the elevator goes up, suppose the speed limiter detects that the up speed exceeds the limit value, it will start the brake to stop the elevator to ensure that it runs safely at the rated speed.	●	—
Self-rescue System while Car Slipping	Safety technology invention patent. The system monitors the car's status when the elevator is in the door-opening zone. If the car is slipping, the computer host automatically outputs the holding torque to keep the car in the door-opening zone, immediately opening the door and reminding passengers to leave the elevator. When the car is vacant, the elevator closes the door and runs to the top floor (the safest position), generating a fault code and stopping service.	●	—
Infrared Light Curtain	The elevator will promptly detect any people or objects blocking the infrared light curtain and reopen the door during the closing process, improving passengers' safety.	●	—

Functions and Equipment

Safety

		Standard	Option
Overload Protection Function	The load inspection apparatus installed on the bottom of the elevator car will send warning and cannot be operated whenever overload is detected.	●	—
Alarm Function in Non-door-open Area	Suppose the elevator halts in the non-door-open area due to power failure or malfunction. In that case, the buzzer will alarm to show that the elevator door cannot open because the elevator is not landing in the floor area. Therefore, the car door cannot be opened unless the rescuers land the elevator in the door-open area to rescue the trapped personnel. The buzzer will stop alarming when the elevator reaches the door-open area.	●	—
Intercom	In the event of an emergency, press the emergency button to communicate with the administrator.	●	—
Overload Return Safety Device (ORS)	If an external force interferes during the door closing/opening, and this force exceeds the specified threshold, the elevator door will move in the reverse direction to ensure safety.	●	—
Next Floor Landing Function	When the car arrives on the floor but cannot fully open the door for any reason, such as object blocking, the car will travel to the next floor and automatically open the door. Also, when the car cannot successfully close the door due to the object stuck in the sill, the door will automatically open repeatedly until the object is removed.	●	—
Low-Speed Safe Landing while Malfunction	If the car has stopped between floors due to equipment malfunction, the car will automatically move to the nearest floor at low speed and open the door. Meanwhile, the elevator will stop service when the car is vacant.	●	—
Emergency Lighting	In the event of power failure, the emergency lighting installed on the car ceiling will automatically ignite.	●	—
Automatic Return to the Lowest Floor when Abnormal Position	For a running elevator, if the floor position judged by the system does not match the correct floor, it will be considered abnormal. At this time, the elevator will automatically move to the lowest floor (or the highest floor) at a slow speed and stop. After the system resets to the correct floor number, it can resume normal operation to ensure safety.	●	—
Anti-pry Car Doors	Additional automatic door locking function further protects safety by preventing in-car passengers from opening the door and falling into the hoistway.	—	●
Automatic Landing Device for Power Failure (ALP)	In the event of a power failure, the device will replace the regular power supply, and the elevator will automatically move to the nearest floor to allow passengers to exit the car safely, thereby avoiding the situation where passengers are locked in the elevator during a power failure.	—	●
Absolute Positioning System (APS)	The sensor above the elevator car reads the tape installed in the hoistway in a non-contact way to detect the current absolute position of the car. Avoid measurement errors caused by rope slippage or dynamic rope effects; even unfavorable environmental conditions (such as the presence of thick black smoke) do not affect the measurement results. In addition, it can increase the functions of upstream and downstream overspeed protection and check end-stage deceleration, greatly improving safety.	—	●
Mechanical Safety Shoe	During the door-closing process of the elevator, when the door safety shoe collides with a person or item, the elevator will stop closing and reopen the door immediately.	—	●
Mechanical Safety Shoe + Ultra-thin Light Curtain	During the door-closing process, if the person or object blocks the infrared rays emitted by the light curtain or collides with the safety shoes at the end of the elevator door, the elevator immediately stops and reopens the closing the door, which doubles the safety of passengers.	—	●
Earthquake Emergency Operation	When the earthquake sensor is activated, the running elevator will automatically run to the nearest step and stop service. Simultaneously, "Earthquake Control" will be displayed in the operation panel.	—	●
Fire Alarm Operation	When a fire occurs, the elevator will automatically run to the refuge floor after receiving the fire alarm signal from the building equipment, allowing passengers to leave the car.	—	●
Fire Emergency Operation	When a fire occurs, the elevator will automatically run to the preset fire escape floor through the fire switch and then stop.	—	●
Firefighters' Emergency Operation	When a fire occurs, the elevator will automatically run to the preset floor of the fire escape through the fire switch. After the door opens, the firefighters will operate the elevator with a unique key.	—	●
Operating by Building Emergency Power	Suppose the building itself has power generation equipment, but only some elevators are allowed to be used. In that case, the elevators can be safely run to the refuge floor (lobby floor) according to the preset sequence, allowing passengers to leave. Finally, one or several elevators are reserved for transportation during a power outage. The elevator will automatically resume operation when the power supply returns to normal.	—	●

Security

		Standard	Option
Face Recognition	After confirming the passenger's identity through the facial recognition system, the right to register the floor is granted, or the system can directly register to the preset destination floor. The system can also combine with the Destination Dispatch system to guide the identified passenger to the designated elevator. (The owner provides the face recognition machine, and Hitachi Yungtay Elevator provides the communication interface)	—	●
Internet of Things (IoT)	IoT collects, analyzes, and utilizes elevator data through the network to optimize the intelligent elevator system and achieve the elevator functions of intelligent monitoring, preventive maintenance, and instant rescue.	—	●
Central Control and Monitoring System (YECM)	The YECM system transmits the elevator operation signal in the operation panel to the monitoring computer through digital communication. The administrator can monitor the running status of the elevator, set the running mode, issue control commands, perform statistical analysis of the elevator operation, make reservations, and record the faults of the elevator.	—	●
Smartphone Car-Calling	It uses the APP and BlueTooth from a smartphone or tablet to accurately locate the floor and quickly complete the elevator call and the destination floor registration.	—	●
Security Mode	When there is an intruder in the home, the user can enter the password through the floor button on the car control panel so that the elevator will move to the non-leveling floor and stand by, and the lighting and fans will continue to run. At this time, the system will automatically notify the service center through the IoT function, making the elevator a safe refuge.	—	●
Car Monitoring	The car monitoring device can automatically detect the situation in the car. For example, suppose the passenger falls over or cannot move; the elevator will automatically run to the lobby floor to open the door, sound an alarm, and notify the service center through the IoT function to minimize the damage of an accident.	—	●
Car Disinfection	"Positive and Negative Ions Air Purifier," "Antibacterial Handrail," and "UV Germicidal Lamp" provide clean space for elevator and additional protection for the health of passengers.	—	●

Functions and Equipment

Safety

		Standard	Option
Non-Contact Button	When moving the finger toward the button within 1 cm, passengers can trigger the button signal to call a car by induction. As a result, passengers do not need to press buttons directly, reducing the risk of germ infection.	—	●
Emergency Visible System	When an emergency occurs in the car, passengers can press the emergency video intercom button on the car's control panel to communicate with the outside. People outside the car can also know the situation in the car in real-time through the visual system to ensure the safety of passengers.	—	●
Elevator Multimedia Cam System (OPYM4)	It can display the dynamic position of the elevator and import information such as weather conditions or financial stock markets through the Internet. In addition, it provides passengers with real-time and valuable information and can provide functions such as audio and video advertisements and electronic announcements.	—	●
Card Reader Interface	Provide contact points for card reader machines in elevator halls or cars, reserve holes in the inner wall panels of the car, and assist in the instal-lation of card reader machines so cardholders can use the elevator.	—	●
Password Call for Specific Floor	For specific floors, such as private residences and storage rooms, the owner can set password operation control after following specific steps and require personnel to call the elevator after operating the password. First, press the button of a specific floor, and then enter the three-digit password. Only when the password is correct can passengers reach the designated floor.	—	●
Monitoring and Control System (CCTV)	Through this device, the superintendent of the building can observe the situation in the elevator car to prevent the occurrence of crimes.	—	●
Supervisory Panel	The device consists of a display part for monitoring the running status of the elevator, an operation part for elevator operations, and an intercom for communication with the car.	—	●
Interphone System	When an emergency occurs in the car, press the emergency call button for more than 3 seconds, and the system will dial the preset outside line to ask for help. (six groups of phone numbers can be preset)	—	●

Operating Functions

		Standard	Option
Sonic Car Button	When the passenger presses the hall control panel button, the button lights up with a response sound of "beep." The door will reopen if the button is pressed again during the door-closing process.	●	—
Inspection Operation	Start this function during elevator maintenance, and the elevator will run at a low speed.	●	—
Adjustable Door Opening Time	Depending on the number of people using the elevator on each floor, the owner can adjust the duration of the door opening freely.	●	—
Extended Door Opening Time Button	Pressing the door opening button can extend the elevator door opening hold time.	●	—
Out-of-Service Operation	For building management needs such as nights and holidays, the elevator needs to be parked; or when the elevator demand is low, the elevator is called back to the parked floor and stopped to save energy.	—	●
Attendant Operation (ATT)	Department stores and other crowded places can provide passengers service through elevator attendants.	—	●
VIP Operation	This operation provides a way to service the VIPs. Under this operation, the elevator will only respond to car calls but ignore hall calls.	—	●
Scheduled automatic stop/start management	Through the time setting of the timer, the elevator can automatically stop and start running within the preset time.	—	●
Signal Registration through Switch Key	On a specific floor, the switch key is used to replace the hall operation button to register the car call signal.	—	●
Non-Service for Specific Floor	Through the non-stop switch, the elevator can directly terminate the service of a specific floor.	—	●
Auxiliary Car Operating Panel	In addition to the primary car operating panel, install another operating panel to assist the floor register.	—	●
Extended Door Opening Time Through Accessible Operating Panel Calling	The door opening time of the elevator can be extended when passengers register the car call signal from the accessible operation panel (including the car panel and the hall panel).	—	●
Independent operation (For group management)	A designated elevator can be temporarily separated from the group control system and used as an independent operating elevator.	—	●

Signal and Display

		Standard	Option
Arrival Lighting in Hall (floor indicator blinking)	As the elevator travels, the directional arrows begin to flow. When the building name flashes, the elevator is about to arrive. During running: the running direction arrow moves with the running direction of the elevator. Before arrival: the button and the floor number flash.	●	—
Arrival Lighting in Car (landing floor button blinks)	The floor button in the car will flash to notify passengers in the car that the elevator is about to arrive. During running: the running direction arrow moves with the running direction of the elevator. Before Arrival: The button and the name of the building flash.	●	—
Arrival Chime (Electronic)	Electronic bells notify passengers that the elevator is about to arrive.	—	●
Arrival Lighting (hall lantern blinks)	The hall lantern flashes to notify passengers that the elevator is about to arrive.	—	●
Speech Synthesis (floor landing notice, etc.)	The female-friendly voice is used to broadcast station announcements through the voice synthesizer.	—	●
BGM Broadcast	The broadcast device of the building can be directly connected to the car and broadcast in the car.	—	●

Other Functions

		Standard	Option
Hall Indicator Inspection	The boarding indicators on each elevator floor can quickly screen out damaged indicators through the operation and inspection of maintenance personnel.	●	—
Elevator Door Stop Switch	The elevator door stop switch is installed in the operation box of the car operation panel. Maintenance personnel can carry out daily maintenance work by using this switch.	●	—
Running Time Display	Through the maintenance mobile phone to check the running time of the elevator.	●	—

Purchase Information and Excluded constructions

Purchase Information > Please provide the following information when purchasing the elevator or inquiring about the related specifications.

1. Construction Name
2. Construction Site, Location, or Address
3. Elevator Dimensions (passenger or weight load, speed, door opening measure, and control measure)
4. Number of Elevator Installations
5. Number of Landing Floors and Height of Each Floor
6. Power Supply Voltage and Frequency
7. Car Design, Hall Fixtures, and Jamb Type
8. Architectural Drawing for Elevator Installation Desired (steel structure of the whole building is necessary)
9. Due Date in Expectation (should there be any other questions, please contact us, we will answer and explain to you as soon as possible.)

Excluded Constructions

I. Machine Room：

1. (1) The construction of the machine room shall be based on the drawings provided by Party B, the hooks for installation and maintenance shall be embedded in the ceiling, and the holes shall be reserved for excavation on the ground; (2) The paint on the ceiling, the wall, and the dust-proof paint after the elevator is installed; (3) The lightweight concrete and powder on the floor and recommended additional EPOXY (epoxy resin) engineering.
2. The machine room's primary side power supply equipment (including power supply, vehicle lighting power supply, independent grounding system, switch, and the power receiving panel) and piping and wiring works.
3. The machine room shall provide the ventilation grille and ventilation fan.
4. The machine room's entrance and exit size is 100cm×height 200cm or more to facilitate the transportation of the elevator host motor.

II. Hoistway：

1. The construction of the hoistway is based on the drawings provided by Party B. It includes the entrances and exits of each floor, the preserve holes for buttons and indicators, and the caulking of the door frame after installation.
2. If the hoistway is of steel structure or light partition wall, support beams and columns for fixing guide rails, door frames, buttons, indicators, and other equipment; and primary iron parts for intermediate beams and reinforcing beams.
3. Piping and wiring work for emergency telephones or other equipment (such as monitors, remote monitoring systems, monitoring panels, multimedia, card reader machines and fire alarm switchboards) from the hoistway to the guard room (or administrator room, monitoring room).
4. Suppose the elevator entrance and exit doors have fire prevention functions. In that case, the piping and wiring work from the fire alarm reception switchboard to the elevator recall button to the evacuation level, and reserve a no-voltage A contact on the fire alarm reception switchboard.
5. Waterproof and drainage work for pits and concrete foundation works for buffers.

III. Others：

1. Before the elevator enters the site for construction, the surrounding of the hoistway should be truly closed, and party B should install related guardrail protection equipment at the entrances and exits of each floor. If the hoistway is a glass curtain or cannot be reliably closed due to other factors, party B should provide other anti-fall measures (such as guardrails, safety nets, and other anti-fall measures). Party B must clear sundries such as formwork, wooden strips, safety nets, and steel bars in the machine room and the hoistway (if this item is not completed, due to the safety of the operation, personnel will not be dispatched to the site for construction).
2. After the machine parts are delivered to the construction site, party B should provide a storage place for the goods and tools. However, if the installation cannot be performed due to the reasons of Party A, the responsibility for keeping the machine parts shall be responsible to Party A.
3. After unpacking and installing the goods, Party B shall dispose of them at the designated place. Party A shall be responsible for clearing and transporting them to the construction site.
4. Party B shall provide the cement, sand and gravel, water, and electricity required in the construction and the power supply for installation and operation consistent with the official electricity consumption.
5. Party B shall provide the height reference line of the elevator entrance and exit and the complete reference line of the elevator wall as the basis for the elevator installation.

Our company is responsible for the elevator's design, manufacture, and installation. However, the items mentioned above are not included in the elevator estimate. Therefore, the client should be responsible for entrusting the construction or electrical engineering contractor to carry out the project.

Related Regulations

National Standards of the Republic of China (CNS) and related regulations

01.	Except for the necessary equipment, it shall not install or support other objects in the machine room.	【CNS2866 4.1.1.(2)】
02.	The machine room should have lighting and ventilation equipment to facilitate management and inspection. The illumination should be above 100 lx (meter candlelight), and the ventilation equipment should be able to keep the temperature below 40° C.	【CNS2866 4.1.1.(3)】
03.	The entrance and exit of the machine room should be locked, and the device should be in good condition.	【CNS2866 4.1.1.(4)】
04.	From the machine room to the corridor, the staircase should be easy to pass, the stair should equip with handrails, and its inclination angle with the horizontal should not exceed 60 degrees.	【CNS2866 4.1.1.(5)】
05.	The height of the machine room should be at least two meters.	【CNS2866 4.1.1.(6)】
06.	The area of the machine room should be at least twice the projected area of the elevator path. However, it applies to those that do not hinder maintenance, inspection, and management.	【CNS2866 4.1.1.(7)】
07.	The bottom plate of each machine room must be fire-proof (not less than a two-hour fire rate), and the roof must be sturdy and fire-resistant (not less than a two-hour fire rate).	【CNS2866 4.1.1.(9)】
08.	The structure of the entrance and exit of the machine room shall have the following devices: a. Those who can automatically shut down. b. There is a spring lock or similar device so that the door can open without a key. c. Except for the roof opening, the walls of the machine room should be fire-resistant (two-hour rate).	【CNS2866 4.1.1.(10)】
09.	If the height of the bottom plate differs by more than 60 cm in any machine room, appropriate guardrails and ladders must install in the place where has a height difference.	【CNS2866 4.1.1.(11)】
10.	The power receiving panel's main switch should be located near the machine room's entrance and exit, which must be easy to operate and safe.	【CNS2866 4.1.2.(1)】
11.	When using emergency elevators, backup power should provide. Furthermore, the building structure of the lift for emergency use shall comply with the provisions of the building's technological rules and relevant regulations. Besides, it should respect the indication of letter No. 8904590 of the National Fire Agency, Ministry of the Interior. It stipulates that "emergency elevators should not equip with car readers machine for riding."	【CNS2866 4.1.2.(4)】
12.	Piping and wiring unrelated to the elevator shall not install in the hoistway.	【CNS2866 4.1.9.(11)】
13.	There should be no water leakage in the elevator pit, and it needs to clean.	【CNS2866 4.1.10.(1)】
14.	The bottom plate of the elevator pit should be able to withstand the fully-loaded car or counterweight.	【CNS2866 4.1.10.(11)】
15.	The hoistway and the inner wall of the elevator pit should be flat and smooth without any protrusions.	【CNS2866 4.1.10.(12)】
16.	Each hoistway must be completely closed except for the openings of entrances and exits and ventilation equipment.	【CNS2866 4.1.10.(14)】
17.	When any part of the lower part of any hoistway is used for human use or similar use, emergency safety devices must also be installed on the counterweight side compared to the car.	【CNS2866 4.1.10.(21)】
18.	Dry-type transformers should be installed in the substation, or the windings and terminal joints of the transformer should be enclosed in a closed metal enclosure without ventilation or openings.	【Article 314 of User electrical equipment installation rules】
19.	Equipment grounding: The non-live metal parts of electrical equipment and appliances should be grounded.	【Article 24-2 of User electrical equipment installation rules】
20.	Except for the car and its attached equipment, no objects shall install or set up in the hoistway. Also, appropriate space shall be set aside to keep the car safe.	【Article 110-1 of the Architectural Equipment of Building Technical Regulations】
21.	Except for the entrance door and ventilation holes, the hoistway should be enclosed walls with a fire-proof structure and have sufficient strength to support the guide rails of the car and counterweight.	【Article 110-3 of the Architectural Equipment of Building Technical Regulations】
22.	The pit below the ground should be of waterproof structure, and appropriate space should be reserved to maintain safe operation. Since there may be other users on the ground directly below the pit, the bottom of the pit should have sufficient safety strength to resist any impact from the car.	【Article 112-1 of the Architectural Equipment of Building Technical Regulations】
23.	The beam or floor supporting the elevator should be able to bear the total weight of the elevator.	【Article 118 of the Architectural Equipment of Building Technical Regulations】
24.	The elevator shall be equipped with a device to land on the nearest floor when a power failure occurs.	【Article 110-6 of the Architectural Equipment of Building Technical Regulations】

Excluded Constructions

According to the following laws and regulations, elevator equipment must obtain a use permit before it can use. Furthermore, in line with the rules of the competent authority, Party A needs to submit a copy of the construction license and other relevant documents, while Party B can submit an application for completion inspection to the professional inspection unit on behalf of Party A :

1.	After the installation of the elevator equipment is completed, it is not allowed to use it unless it has passed the completion inspection and obtained the use license.	【Article 3 of the Certificate of Administrative Regulations on Installment and Inspection of Elevator in Building】
2.	The administrator shall entrust a professional manufacturer to be responsible for the maintenance of the elevator equipment. Technicians shall implement it monthly according to the general maintenance procedures.	【Article 4 of the Certificate of Administrative Regulations on Installment and Inspection of Elevator in Building】
3.	Unless the owners have obtained a use permit after completing the inspection, the building elevator and mechanical parking equipment shall not be used.	【Article 77-4 of Building Act】

Maintenance Service

Corporate Philosophy :

Advanced Technology

Top Quality

Best Service

Hitachi Yungtay Elevator Co., Ltd. (formerly Yungtay Engineering Co., Ltd.) was founded in July 1966. For more than 50 years, we have steadily expanded and innovated. It has pioneered the design, manufacture, installation, and maintenance process in Taiwan's elevator industry and established the first local elevator brand in Taiwan. Following its solid entrepreneurial footprint, Hitachi Yungtay Elevator (formerly Yungtay Engineering Co., Ltd.) has rapidly expanded its business map from Taiwan to worldwide.

24-Hour

Service Center

We keep in check with the elevator conditions in all year round, providing 24-hour maintenance timely.

Over 30

Service Locations

Our service bases all over the country have formed a perfect and rapid elevator service safety net connecting every customer's heart.

Over 60,000

Maintenance Experience

We have been developing steadily for over 50 years and have more than 60,000 installations and maintenance experience with elevators and escalators in Taiwan.

Over 1,200

Professional Licenses

Using electronic data management, high-precision diagnostic tools, and a complete logistics parts-providing system, our professional maintenance service personnel build the most functional maintenance team.

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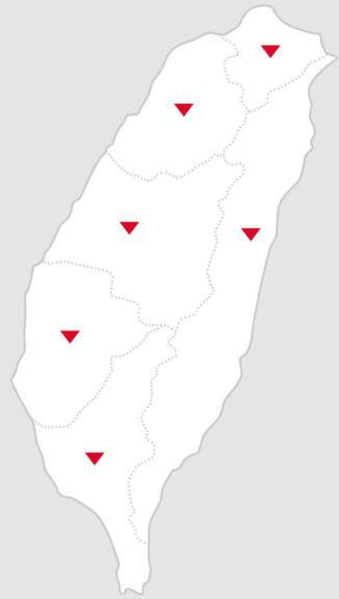

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