https://en.hitachi-yungtay.com.tw

| | | |
|---|---|---|
| Headquarter | 11F., No. 99, Fuxing N. Rd., Songshan Dist., Taipei City 105, Taiwan (R.O.C.) | +886-2-2717-2217 |
| Building System Branch | No. 6, Aly. 54, Ln. 63, Sec. 2, Dunhua S. Rd., Da’an Dist., Taipei City 106, Taiwan (R.O.C.) | +886-2-2709-3355 |
| Taoyuan Plant | No. 1352, Chunri Rd., Taoyuan Dist., Taoyuan City 330, Taiwan (R.O.C.) | +886-3-325-4161 |
| Taoyuan Branch Company | No.29, Lane 1314, Chunrih Rd., Taoyuan Dist., Taoyuan City 330020, Taiwan (R.O.C.) | +886-3-317-1879 |
| Taichung Branch Company | 3F., No. 98, Sec. 2, Dongxing Rd., Nantun Dist., Taichung City 408470, Taiwan (R.O.C.) | +886-4-2472-7878 |
| Tainan Branch Company | No.18, Dongciao 1st Rd., Yongkang Dist., Tainan City 710038, Taiwan (R.O.C.) | +886-6-303-8600 |
| Kaohsiung Branch Company | No.200, Dashun 3rd Rd., Lingya District, Kaohsiung City 802013, Taiwan (R.O.C.) | +886-7-761-5161 |
| Service Center | No. 6, Aly. 54, Ln. 63, Sec. 2, Dunhua S. Rd., Da’an Dist., Taipei City 106, Taiwan (R.O.C.) | +886-2-2701-7060 |
| Da’an Service Station | No. 6, Aly. 54, Ln. 63, Sec. 2, Dunhua S. Rd., Da’an Dist., Taipei City 106, Taiwan (R.O.C.) | +886-2-2709-3355 |
| Tien Mu Service Station | No.10, Ln. 47, Huangxi St., Shilin Dist., Taipei City 111046, Taiwan (R.O.C.) | +886-2-8866-2369 |
| Chung Shan Service Station | 1F., No.5, Ln. 39, Sec. 3, Minquan E. Rd., Zhongshan Dist., Taipei City 104078, Taiwan (R.O.C.) | +886-2-2515-0656 |
| Chung Cheng Service Station | 2F.-1, No.232, Kangding Rd., Wanhua Dist., Taipei City 108015, Taiwan (R.O.C.) | +886-2-2336-2697 |
| Tamsui Service Station | No. 77, Ln. 169, Beixin Rd., Tamsui Dist., New Taipei City 251025, Taiwan (R.O.C.) | +886-2-2621-5958 |
| Keelung Service Station | No.26, Ln. 166, Sec. 2, Anle Rd., Anle Dist., Keelung City 204011, Taiwan (R.O.C.) | +886-2-2433-1210 |
| Pei Hai Service Station | No. 315, Kangning St., Xizhi Dist., New Taipei City 221013, Taiwan (R.O.C.) | +886-2-2695-0754 |
| Wen Shan Service Station | No.9, Lane 127, Jhongyang Rd., Sindian Dist., New Taipei City 231015, Taiwan (R.O.C.) | +886-2-2218-7051 |
| Pan Cheng Service Station | No.2, Lane 262, Sec. 1, Jhongyang Rd., Tucheng Dist., New Taipei City 236028, Taiwan (R.O.C.) | +886-2-2266-6091 |
| Shan Chung Service Station | 1F., No. 12-4, Ln. 609, Sec. 5, Chongxin Rd., Sanchong Dist., New Taipei City 241017, Taiwan (R.O.C.) | +886-2-2999-8058 |
| Shuanghe Service Station | No. 1, Ln. 91, Jian 1st Rd., Zhonghe Dist., New Taipei City 235602 , Taiwan (R.O.C.) | +886-2-8221-8728 |
| Taolin Service Station | No. 5, Ln. 35, Kunming Rd., Taoyuan Dist., Taoyuan City 333020, Taiwan (R.O.C.) | +886-3-376-1321 |
| Jhongli Service Station | 1F., No.36, Fushou 9th St., Zhongli Dist., Taoyuan City 320029, Taiwan (R.O.C.) | +886-3-451-4540 |
| Zhubei Service Station | No.76, Guangming 14th St., Zhubei City, Hsinchu County 302006, Taiwan (R.O.C.) | +886-3-656-5382 |
| Hsinchu Service Station | No.41, Jianhua St., East Dist., Hsinchu City 300033, Taiwan (R.O.C.) | +886-3-562-0568 |
| Fongyuan Service Station | No.93, Fongtian Rd., Fongyuan District, Taichung City 420010, Taiwan (R.O.C.) | +886-4-2526-7118 |
| Taiping Service Station | No. 41, Chang'an E. Rd., Taiping Dist., Taichung City 411012, Taiwan (R.O.C.) | +886-4-3609-5326 |
| Xitun Service Station | 4F., No.35, Zhonggong 2nd Rd., Xitun Dist., Taichung City 407016, Taiwan (R.O.C.) | +886-4-3609-5162 |
| Changhua Service Station | 4F., No.399-5, Sanmin Rd., Changhua City, Changhua County 500003, Taiwan (R.O.C.) | +886-4-700-3602 |
| Douliou Service Station | No.29, Baochang Rd., Douliu City, Yunlin County 640002, Taiwan (R.O.C.) | +886-5-534-7342 |
| Chiayi Service Station | No.420, Beigang Rd., West Dist., Chiayi City 600078, Taiwan (R.O.C.) | +886-5-232-5151 |
| Tainan Branch Company | No.18, Dongciao 1st Rd., Yongkang Dist., Tainan City 710038, Taiwan (R.O.C.) | +886-6-303-8600 |
| Fengshan Service Station | No.188, Nanjing Rd., Fengshan Dist., Kaohsiung City 830036, Taiwan (R.O.C.) | +886-7-766-0126 |
| Pingtung Service Station | No. 21, Ln. 34, Jianxing S. Rd., Pingtung City, Pingtung County 900044, Taiwan (R.O.C.) | +886-8-751-1889 |
| Luodong Service Station | 1F., No.93, Tianxiang Rd., Luodong Township, Yilan County 265033, Taiwan (R.O.C.) | +886-3-954-6160 |
| Hualien Service Station | No.71-30, Jhongmei Rd., Hualien City, Hualien County 970064, Taiwan (R.O.C.) | +886-3-823-6397 |
| Taitung Service Station | No. 22, Aly. 91, Ln. 357, Sec. 6, Zhongxing Rd., Taitung City, Taitung County 950029, Taiwan (R.O.C.) | +886-970-036-709 |


**Hitachi Yungtay Elevator Co., Ltd.**

11F., No. 99, Fuxing N. Rd., Songshan Dist., Taipei City 105
TEL / +886 2 2717-2217 FAX / +886 2 2718-6082


VDI 4707 ISO 9001 ISO 14001 ISO 45001


Our Company reserves the rights to change the specifications, please be reminded that the information in regard with those changes shall not be notified later. Please contact our Company for further details.

Catalog No:YT-EL-0180 2022.12


# Yungtay Elevator

IDEAL FOR THE NEW CENTURY - Modernization Elevator

**EAS**
SERIES
Passenger

## Elevate Your Quality of life

If you have seen further it is by standing on the shoulders of giants.


- High Efficiency and Safety
- Comfortable, Smooth and Quiet
- Energy-saving and Space-saving

# Intelligent Energy Saving Technology

Aligned with latest green energy-saving technology

## 01 LED Energy-saving Lighting

Fully updated to LED high-efficiency light source, high energy saving, no mercury pollution, long service lifetime, and evolution of green homes.

## 02 Humanized Intelligent Control

The optimized design of a high-efficiency permanent magnet motor is adapted to reduce the vibration and noise of the motor. In addition, with structure-strengthening double brakes, the ride is more stable and comfortable.

## 03 Energy-saving and Environmental Protection

The energy-saving design reduces energy consumption, and the gearless design does not require gear oil replacement, greatly reduce the operating noise and vibration.

## 04 Comfortable, Smooth and Low-noise Design

It adapts 32-bit dedicated digital speed control system, high-performance speed, and current loop control, which makes the elevator operates more smooth and reliable.

## 05 PM Direct Drive Synchronous Door Operate System

The smart PM motor has higher efficiency and lower noisy, possessing the technologies of motor parameters and magnetic pole self-learning system. The end of the car door closing process will be smoother, faster, steadier, and quieter.



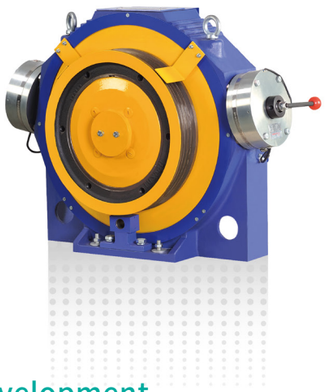
YUNGTAY ECO


## Break the Tradition

Traditional gear reducers have disadvantages such as low drive efficiency, regular replacement of lubricating oil, and large volume and weight.

## PERMANENT MAGNET

Nowadays the earth's energy is scarce, our company is committed to green energy technology and fully adapts the "Permanent Magnet Motor" elevator. The PM motor is a green energy product with the advantages of simple structure, high strength, simple installation and assembly, high transmission efficiency, and good power-saving efficiency.




中華民國專利證書
發明第 I 258913 號
發明名稱：永磁式永磁電機
專利權人：永大機電工業股份有限公司
發明人：
專利權期間：自2006年7月21日至2024年3月10日止
上開發明業經專利權人依專利法之規定取得專利權
經濟部智慧財產局
局長 蔡綠生
中華民國 月 21 日

- Innovative research and development
- Keep core technology in Taiwan
- Leading the industry

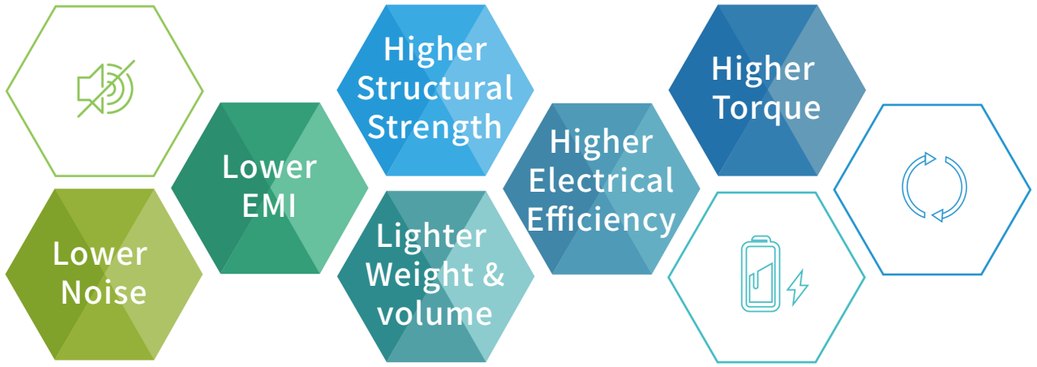
We cultivated in Taiwan and obtained certificate No. 1-258913 for the invention of the patented PM motor. Taiwan's excellent brand, sustainable development and innovation, and the implementation of technologic independence, rooting the technology downward.

This catalog is only for reference. If any modifications is needed, please contact our sales department.

# Create a New Generation of Environmental Protection

Y-ECO

## Features of PM Motor




Winding Self-Interlock Device: Even if the brake fails, the elevator will only slowly slide down until compressing the buffer, and then the slide halts; no severe damage will occur due to uncontrollable collision.

Dual Brakes

Traction machine with higher transmission efficiency and lighter weight that can reduce electricity consumption to save energy as well as lower carbon emission.

Gearless structure eliminates the noise by occlusion of gear wheels. As a result, there is no need to use gear oil for lubrication.

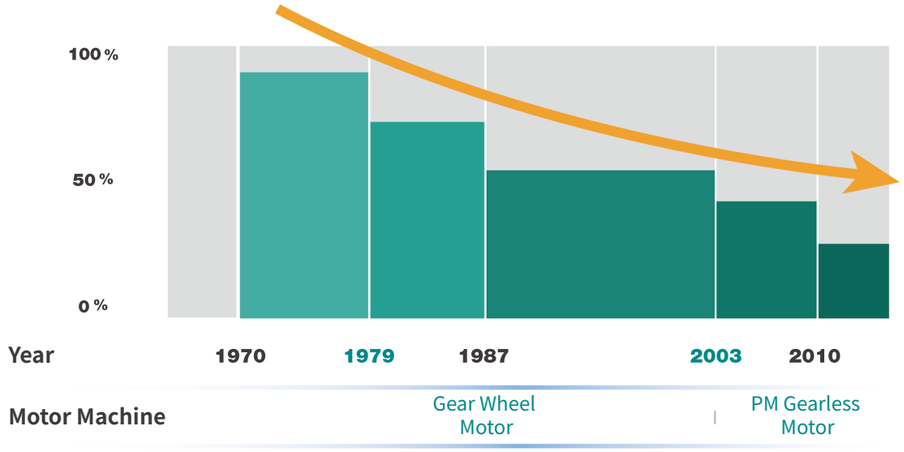
## New Renovation

| | |
|---|---|
| Energy Saving and Carbon Reduction | Switch to the VVVF frequency conversion control system, which saves more than 30% power compared with traditional non-frequency conversion. |
| Ride Improvement | The elevator runs more smoothly and quietly, and the parking position is more precise and smooth. |
| High Stability | The control system and wiring are renewed, greatly reducing the malfunction rate and improving reliability. |
| Beautification | The operation panel and buttons are replace with modern look to enhance the home's aesthetics. |
| Guard all year | A direct telephone system can be selected to provide 24-hour emergency rescue service. |

LEVEL UP



## Elevator Technology Development and Energy-Saving Effects




Electricity consumption reduces **70%** (maximum)

$CO_2$ emission reduces approximately **3900** (kg/year)

## Safe and Reliable

### Braking Force Auto 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 weaker, 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) (EAS0 excluded)

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) (EAS0 excluded)

When the elevator goes upward, suppose the speed limiter detects that the upward speed exceeds the limit value, it will start the brake to stop the elevator to ensure that it runs safely at the rated speed.

This catalog is only for reference. If any modifications is needed, please contact our sales department.

# Modernization Plan

## A1 Modernization Plan : Electrical Control Update


### Reduce Energy Consumption

Control motor speed by frequency modulation, which improves energy efficiency and saves more than 30% power consumption.

### Precise Leveling the Floor while Arrives

Due to the microcomputer, the calculation of the moving speed of the elevator has become very accurate. As a result, when the elevator decelerates and stops at the floor, the floor surface is level, and almost no step difference.

### High Reliability

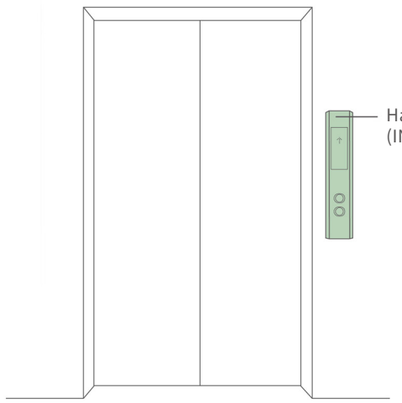
The non-contact electronic control of the machine and the revolutional performance of the elevator can greatly reduce the malfunction of the elevator.

### Thin Thickness IND

Provide exquisite external hanging thin IND, which will not damage the surface appearance of the original building and improve renewal efficiency. The font color is orange (the same color as the OPB display in the car).

### Renewal and Modernization Parts

Control panel, Car/Hall operating panel, Car position indicator, Digital encoder, Conjection box, Arrive position detector, Limit switch, Intercom system, Movable cable, Control cable, Power wiring.




## A2 Modernization Plan : Door and Door Operate System Update


### Refreshed Appearance

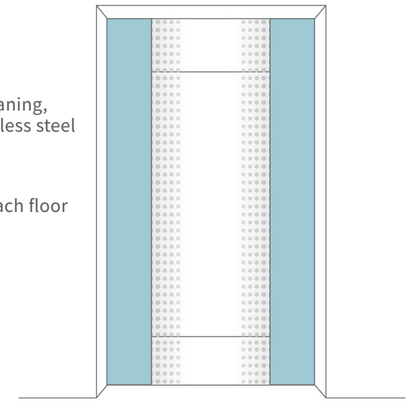
Improve the image of the building and realize the smooth, fast, and silent opening and closing of the elevator door.

### Safety Guarantee

Added "Overload Return Safety Device (ORS)" when the elevator encounters a specific resistance when closing or opening the door. It will automatically reverse direction to prevent people from being caught or dragged into the door gap.

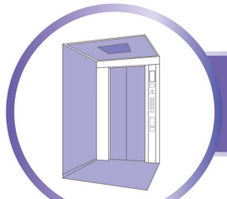
### Renewal and Modernization Parts

Door opening and closing device, Overload return safety device (ORS), Safety shoes, Car door, Car door linkage mechanism, Door panels, spreaders, safety switches of entrances door of each floor, and repainting and cleaning of door frames.



Smooth, fast, and silent opening and closing

# Modernization Plan



## A3 Modernization Plan : Ceiling and Interior Decoration Update

### Comfortable Riding Environment

Ceiling lighting, side panels, floors, and doors are updated to provide a novel, bright, comfortable riding environment.

### Safety and Aesthetics

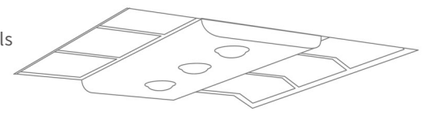
For elevators, safety is required, performance is pursued, and beauty is also concerned.

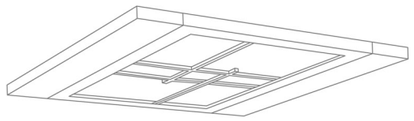
### Provide Various Designs

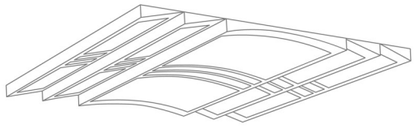
Provide various designs of elevators which suitable for every type of building.

### Renewal and Modernization Parts

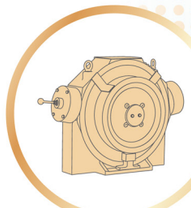
Such as Ceiling, Lighting, Side panels, Ventilation fans, Floor, Doors, Safety shoes, Guide shoes, Rubber guide wheels, etc.









## A4 Modernization Plan : Motor Update

### Life Cycle Renewal

The worm gear and worm wheel is easy to cause abnormal vibrations during operation after years of wear and tear. After the entire set is updated, running vibration will eliminate and renew the life cycle.

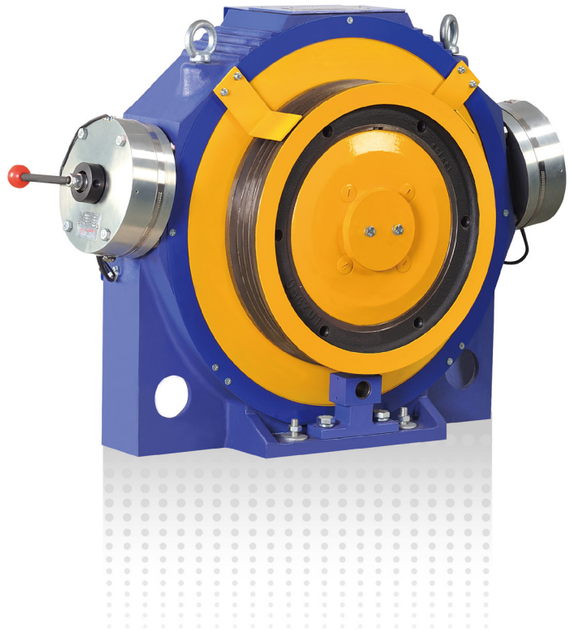
### Modernization Parts

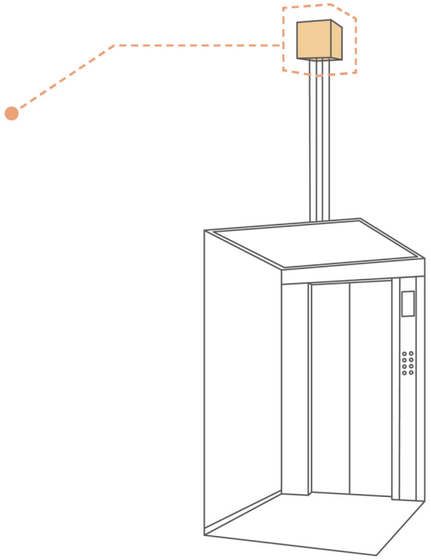
Replace old parts such as PM Motor, Main steel rope, Governor, Governor rope, etc.

### Modernization Suggestion

The motor usually has a long service life. Therefore, an update of the PM motor is recommended when the elevator needs to be modernized.

Permanent-Magnet (PM) Motor





# Modernization Plan

## Modernization Schematic Diagram

### A1 Electrical Control Update

Such as the Control panel, Car/Hall operating panel, Car position indicator, Digital encoder, Conjunction box, Arrive position detector, Limit switch, Intercom system, Movable cable, Control cable, Power wiring, etc.

### A2 Door and Door Operate System Update

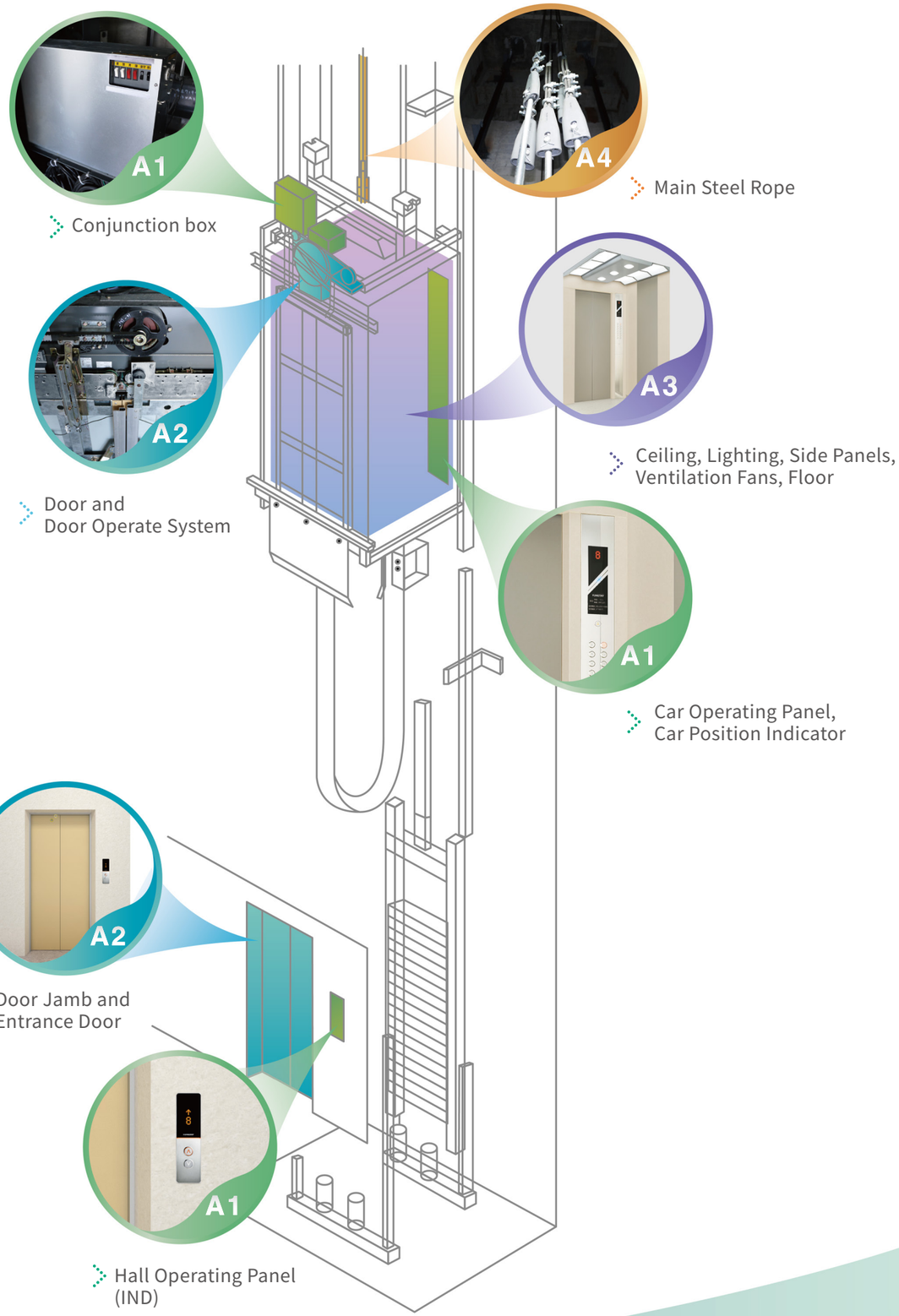
Such as the Door opening and closing device, Overload return safety device (ORS), Safety shoes, Car door, Car door linkage mechanism, Door panels, Spreaders, Safety switches of entrances door of each floor, and repainting and cleaning of door frames, etc.

### A3 Ceiling and Interior Decoration Update

Such as Ceiling, Lighting, Side panels, Ventilation fans, Floor, Doors, Safety shoes, Guide shoes, Rubber guide wheels, etc.

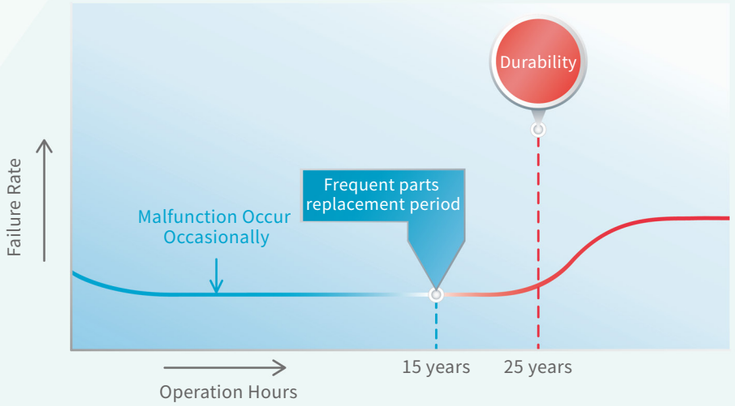
### A4 Motor Update

Replace old parts such as PM Motor, Main steel rope, Governor, Governor rope, etc.

# Modernization Feature

| Before Modernization | After Modernization |
|---|---|
| **A1 PANEL** | |
| Since the mechanical type electrical circuit has been used for many years, the wiring and the contacts will be oxidized easily, making the signal transmission susceptible to interference and malfunction. | The microcomputer-type frequency conversion control circuit adapts the best wiring plan to reduce the sound of the control panel. In addition, the entire control panel update can greatly reduce the malfunction rate. |
| **A1 CPI** | |
| The car position indicator is placed above the car door, the position is too high, and passengers need to look up to watch, which is not ergonomic. | The new floor indicator is changed to be placed on the upper part of the car operating panel, and the position is lower so that passengers can look at eye level. |
| **A1 OPB** | |
| Since the OPB panel has been used for many years, most of which are dirty and old. In addition, the floor number on the button is worn and difficult to identify. | The stainless steel hairline material panel is equipped with large buttons, and the panel configuration is clear and easy to operate. |
| **A2 JAMB and SILL** | |
| The frequent use of door jambs and sills, which are easily deformed by collision, wear and tear, damage the appearance. In addition, it will also cause the failures of door opening and closing. | Most of the door frames are connected to the building. When updating, the original door frames can be kept on-site and covered with stainless steel, and most of the sills can also be retained. A microcomputer controls the opening and closing of the door to make it smooth and quiet. |




| Before Modernization | After Modernization |
|---|---|
| **A2 ENTRANCE DOOR** | |
| After years of use, the inner and outer door panels have been impacted, scratched, worn, and deformed, affecting the user's perception. | Various materials such as Baking-finished, Colored Pattern steel plates, and Stainless steel can be used to update the inner and outer door panels, making the entrance and exit doors look brand new. |
| **A3 CEILING** | |
| After years of use, ceiling types become outdated. The light-transmitting board is aging, and the light transmission is reduced, resulting in insufficient lighting. | Various new-style ceilings are available for selection in combination with car interiors and building uses. |
| **A3 CAR** | |
| The car's design is old, with many wears and no vitality, which affects the mood of daily users. | Various new car designs are available to enhance the texture of the elevator and the added value of the building, making passengers feel bright and comfortable. |
| **A4 PM MOTOR** | |
| After many years of use, even if the elevator is maintained as scheduled, the gaps between the various parts of the machine will increase, the movement will not be smooth, and the noise will be too loud. | The updated motor makes the elevator run quietly and smoothly, saving energy and electricity. |

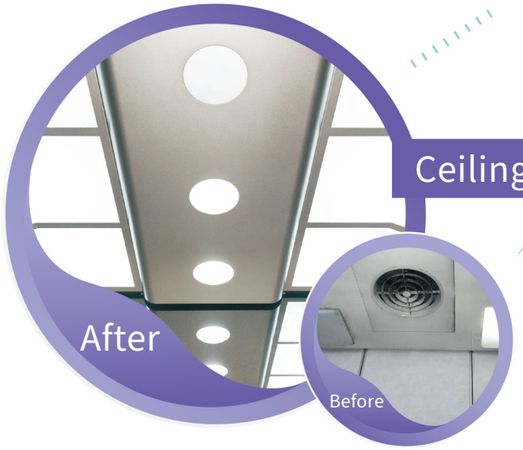
The average service life of the elevator is about 25 years. During this period, for everyone to use it with peace of mind, proper maintenance must be carried out so that the elevator can operate normally and have safety guarantees.

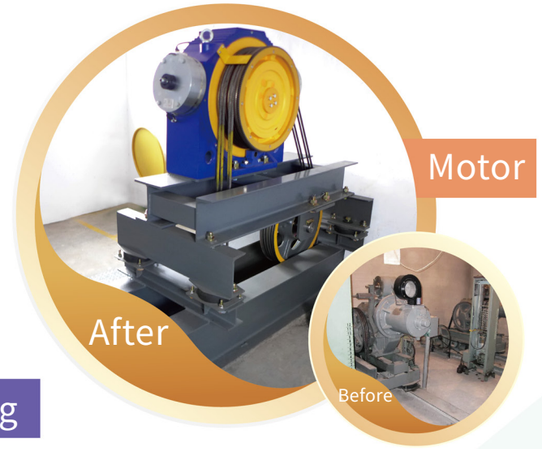
Above 15 years walk into the parts replace period to reduce the malfunction rate.

The design lifetime of the elevator is about 25 years.

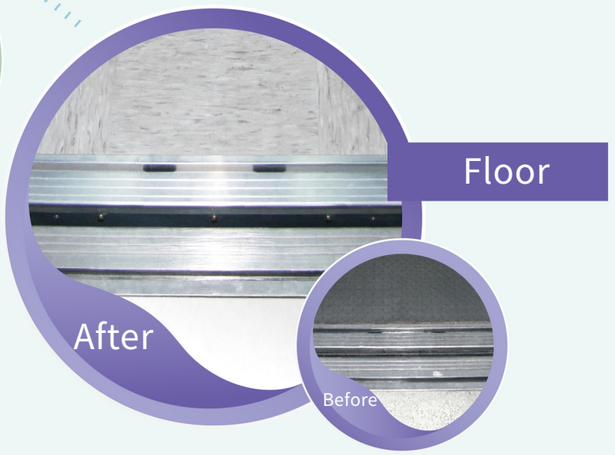
According to the business income tax law promulgated by the Executive Yuan, the depreciation period of the elevator is 15 years.

## Modernization Before and After








## Modernization Project

Presidential Office Building (Government)


Taipei Veterans General Hospital (Hospital)

Taipei Medical University Hospital (Hospital)

Linkou Chang Gung Memorial Hospital (Hospital)

World Trade and Financial Center Building (Commercial Building)

China Airlines Building Taipei Branch Office (Commercial Building)

National Cheng Kung University Yun-Ping Administration (Institute)

Central Bank of the Republic of China (Taiwan) (Government)

New Taipei City Government (Government)

Taipei City Police Department (Government)

Veterans Affairs Council, R.O.C. (Government)

Taipei City Council (Government)

New Taipei City Council (Government)

# Car Design

## CH5 Modern Aesthetics

Modest Temperament · Elegant in Good Taste

| | | |
|---|---|---|
| Model | CH5 | |
| Ceiling | Frame | Steel Plate with Baked Painting (J147) |
| | Middle Plate | Spherical Creamy White Acrylic |
| | Side Plates | Milky White Acrylic Plate |
| Door | Steel Plate with Colored Pattern (A111) | |
| Front Wall | Steel Plate with Colored Pattern (C114) | |
| Operating Panel (OPB) | Embedded Stainless Steel with Mirror Finish<br>Model KF-D2F<br>(Patent Certificate Utility Model No. M420525) | |
| | Minimum Width of Front Wall | 250mm needed for 20 below landings<br>300mm needed for 21 above landings |
| Side Wall | Steel Plate with Colored Pattern<br>Left / Right Plate - (C114)；Middle Plate - (A111)<br>C114 single-colored sidewall is for the elevator with a capacity of 9 passengers at most | |
| Rear Wall | Steel Plate with Colored Pattern<br>Left / Right Plate - (C114)；Middle Plate - (A111) | |
| Floor | NPC Floor Tile : (505) | |



## CH10 Future Image

Simplicity Characteristics · Bold and Advanced

| | | |
|---|---|---|
| Model | CH10 | |
| Ceiling | Frame | Steel Plate with Baked Painting (J161) |
| | Left/Right | Steel Plate with Baked Painting (1-30) |
| | Lining White Wood Grating and Rice Paper Acrylic | |
| Door | Steel Plate with Colored Pattern (1072) | |
| Front Wall | Steel Plate with Colored Pattern (1072) | |
| Operating Panel (OPB) | Embedded Stainless Steel with Mirror Finish<br>Model KF-D1F<br>(Patent Certificate Utility Model No. M420525) | |
| | Minimum Width of Front Wall | 250mm needed for 20 below landings<br>300mm needed for 21 above landings |
| Side Wall | Steel Plate with Colored Pattern (1072) | |
| Rear Wall | Steel Plate with Colored Pattern (1072)<br>+ Mirror Plate Stainless Steel Decorative Strip | |
| Floor | NPC Floor Tile : (531)<br>Frame : (536) | |

# Car Design

## CH12 European Classic

Silent Steady · Eternal Nobility

| | |
|---|---|
| Model | CH12 |
| Ceiling | Frame Steel Plate with Baked Painting (1-51)<br>Matching with Milky White Acrylic Plate |
| Door | Steel Plate with Colored Pattern (A111) |
| Front Wall | Steel Plate with Colored Pattern (SNW-9) |
| Operating Panel (OPB) | Embedded Stainless Steel with Mirror Finish<br>Model KF-D2F<br>(Patent Certificate Utility Model No. M420525)<br>Minimum Width of Front Wall \| 250mm needed for 20 below landings<br>300mm needed for 21 above landings |
| Side Wall | Steel Plate with Colored Pattern<br>Left / Right Plate - (SNW-9)；Middle Plate - (A111)<br>SNW-9 single-colored sidewall is for the elevator with a capacity of 9 passengers at most |
| Rear Wall | Steel Plate with Colored Pattern<br>Left / Right Plate - (SNW-9)；Middle Plate - (A111)<br>+ Mirror Plate Stainless Steel Decorative Strip |
| Floor | Faux Stone Floor Tile : (2103)<br>Frame : (APG922) |

## CH18 Delicate Paragon

Steady Magnitude · Prime Honor

| | |
|---|---|
| Model | CH18 |
| Ceiling | Frame Steel Plate with Baked Painting (1-51)<br>Matching with Milky White Acrylic Plate<br>3 partitions Inside Width > 1100mm<br>1 piece Inside Width ≧ 1100mm |
| Door | Steel Plate with Colored Pattern (SNW-1) |
| Front Wall | Steel Plate with Colored Pattern (SNA-7) |
| Operating Panel (OPB) | Embedded Stainless Steel with Mirror Finish<br>Model KF-D3F<br>(Patent Certificate Utility Model No. M420525)<br>Minimum Width of Front Wall \| 250mm needed for 20 below landings<br>300mm needed for 21 above landings |
| Side Wall | Steel Plate with Colored Pattern<br>Left / Right Plate - (SNA-7)；Middle Plate - (SNW-1)<br>SNA-7 single-colored sidewall is for the elevator with a capacity of 9 passengers at most |
| Rear Wall | Steel Plate with Colored Pattern<br>Left / Right Plate - (SNA-7)；Middle Plate - (SNW-1)<br>+ Mirror Plate Stainless Steel Decorative Strip |
| Floor | NPC Floor Tile : (531)<br>Frame : (536) |

# Car Design

## H2 Classical Collection
Character Extraordinary · Gradation Apparent

| | |
|---|---|
| Model | H2 |
| Ceiling | Frame Steel Plate with Baked Painting (1-51)<br>Matching with Milky White Acrylic Plate<br>3 partitions Inside Width ≧ 1400mm<br>5 partitions Inside Width < 1400mm |
| Door | Steel Plate with Colored Pattern (A111) |
| Front Wall | Steel Plate with Colored Pattern (A111) |
| Operating Panel (OPB) | Embedded Stainless Steel with Mirror Finish<br>Model KF-L4F OPTION<br>(Patent Certificate Utility Model No. M420525)<br>Minimum Width of Front Wall: 250mm needed for 20 below landings; 300mm needed for 21 above landings |
| Side Wall | Steel Plate with Colored Pattern (A111) |
| Rear Wall | Steel Plate with Colored Pattern (A111)<br>+ Decorative Strip (SNW-9) |
| Floor | Wood Grain Floor Tile : (8TF)<br>Frame : (8TE) |



## H4 Starry Sky Melody
Boundless Meteor Shower · Fashion of Romance

| | |
|---|---|
| Model | H4 |
| Ceiling OPTION | Bottom Layer Steel Plate with Baked Painting (J161)<br>Middle Layer Steel Plate with Baked Painting (J179)<br>Upper Layer Steel Plate with Baked Painting (J179)<br>LED Light Central White Light with Multiple-Gradations Meteor Shower Type with Indirect Peripheral Yellow Light<br>Size Limits Inside Width ≧ 1400mm<br>Inside Depth ≧ 1350mm |
| Door | Steel Plate with Colored Pattern (SNC-25) |
| Front Wall | Steel Plate with Colored Pattern (SNC-25) |
| Operating Panel (OPB) | Embedded Stainless Steel with Mirror Finish<br>Model KF-D1F<br>(Patent Certificate Utility Model No. M420525)<br>Minimum Width of Front Wall: 250mm needed for 20 below landings; 300mm needed for 21 above landings |
| Side Wall | Steel Plate with Colored Pattern (SNC-25) |
| Rear Wall | Steel Plate with Colored Pattern (SNC-25)<br>+ Mirror Decorative Strip |
| Floor | Faux Stone Floor Tile : (8T6)<br>Frame : (8T9) |

# Entrance Design

| | |
|---|---|
| Door | Center - opening Door<br>Steel Plate with<br>Baked Painting (1-84) |
| Hall IND | FOX LED |
| Jamb | Narrow Type<br>Stainless Steel with<br>Hairline Finish |
| Sill | Extruded hard aluminum |

| | | |
|---|---|---|
| Door | Center-opening Doors<br>Stainless Steel with<br>Hairline Finish | OPTION |
| Hall IND | FOX LCD | OPTION |
| Jamb | Narrow Type<br>Transom Attached<br>Stainless Steel with<br>Hairline Finish | OPTION |
| Sill | Extruded hard aluminum | |

| | | |
|---|---|---|
| Door | Center-opening Doors<br>Stainless Steel with<br>Hairline Etching Finish (HJ-313) | OPTION |
| Hall IND | FOX BL | OPTION |
| Jamb | Wide Type<br>Transom Attached<br>Stainless Steel with<br>Hairline Finish | OPTION<br>OPTION |
| Sill | Extruded hard aluminum | |
| Lantern | L-63 | OPTION |

| | | |
|---|---|---|
| Door | Center-opening Doors<br>Titanium Steel Plate<br>with Hairline Finish (TK-ED-012) | OPTION |
| Hall IND | FOX BL | OPTION |
| Jamb | Wide Type<br>Stainless Steel with<br>Hairline Finish | OPTION |
| Sill | Extruded hard aluminum | |
| Lantern | L-61 | OPTION |

## Car Operating Panel

**Fox Series** Innovative Embedded Breathing Light Design with Rhythmic Flash.

W.FOX OPB

OPTION

FOX OPB (LCD)
(RETURN-PANEL)

OPTION

## Hall Operating Panel

**Fox Series** Ultra-Thin Hall Indicator, Breathing Light with Rhythmic Flash. Extreme Slim and Thin, Extreme Exquisiteness.

(Side View)

FOX LED
(Wheelchair Use)

OPTION

FOX LED
(Stretch Type)

OPTION

FOX LED

FOX LCD
(Wheelchair Use)

OPTION

FOX LCD
(Stretch Type)

OPTION

FOX LCD

OPTION

## YT Series

Stainless Steel Material Qualities Solid, Aesthetic and Practical.

YE-HD
(Touch button)
(Not Optional for
Accessible Elevator

OPTION

OPY-HD2

OPY-HD2
(RETURN-PANEL)

OPTION

## YT Series

The design is sharp and straightforward, focusing on the texture as well as pursuing the quality.

HF-LM5

OPTION

VF-LM5

OPTION

BL-CE
(Touch button)
(Not Optional for
Accessible Elevator)

OPTION

DIG-CE
(Touch button)
(Not Optional for
Accessible Elevator)

OPTION

DIG-C2
(Wheelchair Use)

OPTION

DIG-C2

DDIG-C2
(Dual joint
operation)

DOT-C2
(Screw Lock)

BL-C2
(Wheelchair Use)

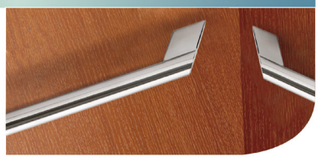
DIG-CT

BL-C2

# Handrail

## Handrail OPTION

Matching with diverse styles and tastes of different constructions A brand-new visual feast with an ingenious touch



### NR-6
Mirror Finished Stainless Steel
Diameter：38mm Φ

### NR-108
Optional for Antibacterial Material
Stainless Steel inlaid with Solid Wood (imitation walnut)
Diameter：38mm Φ

### NR-112
Optional for Antibacterial Material
Stainless Steel inlaid with Solid Wood (imitation sen)
Diameter：38mm Φ

### NR-113
Stainless Steel inlaid with Hairline Stainless Steel
Diameter：38mm Φ

### NR-125
Stainless Steel inlaid with Genuine Leather
Diameter：38mm Φ



### HR-3 (flat type)
Hairline Finished Stainless Steel
Width：150mm
(for freight elevator)

### HR-2 (flat type)
Hairline Finished Stainless Steel
Width：80mm
(for freight elevator)

### HR-1 (flat type)
Hairline Finished Stainless Steel
Width：65mm
(for freight elevator)

# Hall Lantern

OPTION Diamond cutting style, highlighting the aesthetics and good taste.
Where the colors are drawn softly, creating the banquet of visual beauty


L-50 L-51 L-52 L-62 L-61 L-63

# Functions and Equipment

Type : ○ Standard △ Option

| Function | Type | Description |
|---|---|---|
| **Energy Efficiency** | | |
| 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, 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 | △ | Register 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** | | |
| 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** | | |
| 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 | △ | Register 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** | | |
| 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. |
| Overload Protection Function | ○ | The load inspection apparatus installed on the bottom of the elevator car will send a 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. |

# Functions and Equipment

Type : ○ Standard △ Option

## Safety

| Function | Type | Description |
|---|---|---|
| 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 noncontact 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 fire-fighters 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

| Function | Type | Description |
|---|---|---|
| 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 the elevator and additional protection for the health of passengers. |
| 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 installation 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) |

# Functions and Equipment

Type : ○ Standard △ Option

| Function | Type | Description |
|---|---|---|
| **Operating Functions** | | |
| 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 and hall operating 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** | | |
| 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 (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) | △ | 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. |
| **Other Functions** | | |
| 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

Our Company will charge the design, manufacture, and installation of the elevator. However, any items listed as follows do not include in the elevator quotation. As a result, please entrust other contractors about construction or electricity engineering to handle these parts.

## Purchase Information

Please provide the information as follows when purchasing the elevator or inquiring about the related specifications.

- Construction Name
- Construction Site Location or Address
- Elevator Dimensions (passenger or weight load, rated speed, door opening measure, and control measure)
- Number of Elevator Installations
- Number of Landing Floors and Height of Each Floor
- Power Supply Voltage and Frequency.
- Car, Hall Fixtures, and Design.
- Architectural Drawing for Elevator Installation Desired (steel structure of the whole building is necessary)
- 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

01. (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.
02. 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.
03. The machine room shall provide the ventilation grille and ventilation fan.
04. 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

01. 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.
02. 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.
03. 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).
04. 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.
05. Waterproof and drainage work for pits and concrete foundation works for buffers.

### III. Others

01. 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).
02. 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.
03. 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.
04. 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.
05. 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.