Our elevators and escalators are currently operating in approximately 90 countries around the globe. Built placing priority on safety, our elevators, escalators and building system products are renowned for their excellent efficiency, energy savings and comfort. The technologies and skills cultivated at the Inazawa Building Systems Works in Japan and 12 global manufacturing factories are utilized in a worldwide network that provides sales, installation and maintenance in support of maintaining and improving product quality.

As a means of contributing to the realization of a sustainable society, we consciously consider the environment in business operations, proactively work to realize a low-carbon, recycling-based society, and promote the preservation of biodiversity.
Utilizing its technological prowess and extensive experience, we have remained a leader in the vertical transportation market since entering the business in 1931. The Company’s creative, innovative spirit, represented by production of the world’s first spiral escalator and elevator group-control systems that use artificial-intelligence technologies, continues to receive high evaluations industry-wide. Our products and systems are renowned for their high levels of quality, reliability and safety; and it is this sense of security and trust fostered with building owners and end-users alike that has led to the global expansion of our elevator/escalator business and the after-sales network to service it.

We understand responsibilities as a good corporate citizen, and continue to implement measures for protecting the environment and ensuring a sustainable society for future generations. A number of original technologies are being introduced to ensure more efficient products, systems and manufacturing operations, thereby enhancing productivity, reducing energy consumption and providing smoother, faster and more comfortable vertical transportation systems.
Based on our policy, "Quality in Motion", we provide elevators and escalators that will satisfy our customers with high levels of comfort, efficiency, ecology and safety.

We strive to be green in all of our business activities.
We take every action to reduce environmental burden during each process of our elevators’ and escalators’ lifecycle.

Our elevators, escalators and building management systems are always evolving, helping achieve our goal of being the No.1 brand in quality. In order to satisfy customers in all aspects of comfort, efficiency and safety while realizing a sustainable society, quality must be of the highest level in all products and business activities, while priority is placed on consideration for the environment. As the times change, we promise to utilize the collective strengths of its advanced and environmental technologies to offer its customers safe and reliable products while contributing to society.
Welcome to a New Era in Vertical Transportation

Introducing the ELENESSA Version3...

...technologically advanced elevators that consume less power, have minimal impact on the global environment and harmoniously serve people and buildings with smooth, seamless operation. The refined design produces a high-quality atmosphere that reassures passengers of the superior safety and comfort synonymous with our products. Regardless of the use or purpose, the ELENESSA Version3 is a best match solution for virtually any elevator installation.
Devices that Use Less Energy

**LED Lighting (Optional)**

Used for ceiling lights and hall lanterns, LEDs boost the overall energy performance of the building. Furthermore, a long service life eliminates the need for frequent lamp replacement.

- Service life (hr)
  - Incandescent lamp: Approximately 12.5 times longer
  - LED: 25000

- Power consumption (W)
  - Incandescent lamp: 2000
  - LED: 25 W

**Regenerative Converter: PCNV (Optional)**

Elevators usually travel using power from a power supply (powered operation); however, when they travel down with a heavy car load or up with a light car load (regenerative operation), the traction machine functions as a power generator.

Although the power generated during traction machine operation is usually dissipated as heat, the regenerative converter transmits the power back to the distribution transformer and feeds it into the electrical network in the building along with electricity from the power supply. Compared to the same type of elevator without a regenerative converter, this system provides an energy-saving effect of approximately 35%.*

In addition, the regenerative converter has the effect of decreasing harmonic currents.

*The value is a reference datum and may increase or decrease in accordance with actual conditions of use and elevator specifications.

---

**Ecology**

**Using Energy Wisely**

Our long-term commitment to developing energy-efficient elevators has created systems and functions that make intelligent use of power.

**Milestones of Energy-saving Technologies in Elevator Development**

- **1970**
  - Motor: Induction motor
  - Traction machine: AC2 control
  - Power consumption / CO2 emissions: 100%

- **1980**
  - Motor: Permanent magnet motor
  - Traction machine: VVVF control
  - Power consumption / CO2 emissions: 30%

- **1990**
  - Motor: Gearless
  - Traction machine: ACV control
  - Power consumption / CO2 emissions: 37%

- **2000**
  - Motor: Gearless
  - Traction machine: ACV control
  - Power consumption / CO2 emissions: 37%

- **2010**
  - Motor: Permanent magnet motor
  - Traction machine: VVVF control
  - Power consumption / CO2 emissions: 100%

**Notes:**

- *1: Alternative current, variable voltage
- *2: Variable voltage, variable frequency
- *3: CO2 emissions in this table are from elevator operation and do not include emissions from manufacturing, transportation, and other processes.

**Energy-saving Operation – Allocation Control: ESO-W (ΣAI-2200C only)**

This system selects the elevator in a group that best balances operational efficiency and energy consumption. Priority is given to operational efficiency during peak hours and energy efficiency during non-peak hours.

Through a maximum 10% reduction in energy consumption compared to our conventional system, this system allows building owners to cut energy costs without sacrificing passenger convenience.

**Maximizing Operational Efficiency and Minimizing Energy Consumption**

- Energy-saving Operation
  - Approximately 10% reduction in energy consumption compared to our conventional system, allowing building owners to cut energy costs without sacrificing passenger convenience.

---

**Advantages of LEDs**

- Ceiling: L210S
  - LED downlights (yellow-orange)

- Service life (hr)
  - LED: 25000
  - Incandescent lamp: 2000

- Power consumption (W)
  - LED: 25 W
  - Incandescent lamp: 2000

- Approximately 12.5 times longer
- Approximately 75% reduction
Cooperative Optimization Assignment (ΣAI-2200C)

When a hall call is registered, the algorithm assumes a near-future hall call that could require long waits. Through evaluation of the registered hall call and the forecasted call, the best car is assigned. All cars work cooperatively for optimum operation.

Forecasting a Near-future Hall Call to Reduce Long Waits

Cooperative Optimization Assignment (ΣAI-2200C)

When a hall call is registered, the algorithm assumes a near-future hall call that could require long waits. Through evaluation of the registered hall call and the forecasted call, the best car is assigned. All cars work cooperatively for optimum operation.

Allocating Passengers to Cars Depending on Destination Floors

Destination Oriented Allocation System: DOAS (Optional for ΣAI-2200C)

When a passenger enters a destination floor at a hall, the hall operating panel immediately indicates which car will serve the floor. Because the destination floor is already registered, the passenger does not need to press a button in the car. Furthermore, dispersing passengers by destination prevents congestion in cars and minimizes their waiting and traveling time.

Electrical Number

- Ele. No.
- Hall call
- Traveling direction
- Car call
- Car
- Floor
- Call
- Hall call
- Traveling direction

Ele. No.

- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak

Efficiency

Group Control Systems: ΣAI-22 and ΣAI-2200C

When a building is expected to have heavy traffic, optimum car allocation suited for every condition makes a big difference in preventing congestion at a lobby floor and reducing long waits.

Average Waiting Time

Long-Wait Rate

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.

Improved: Max. 40%

Improved: Max. 80%

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.

AI-2200C (latest)

- A hall call is registered at 6th Fl.
- Allocates the closest car B.
- Another hall call is soon registered at 11th Fl.
- Allocates D, resulting in long wait of 26 sec.

AI-2200C (latest)

- A hall call is registered at 6th Fl.
- Allocates D, which is moving upward.
- Another hall call is soon registered at 11th Fl.
- Allocates B, which immediately arrives at the floor.

Average Waiting Time

Long-Wait Rate

AI-2200N

- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak

AI-2200C (latest)

- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak
- Morning up peak
- Lunchtime
- Evening down peak

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.

AI-2200C Performance

- Average Waiting Time
- Long-Wait Rate

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.

Improved: Max. 40%

Improved: Max. 80%

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.

AI-2200C Performance

- Average Waiting Time
- Long-Wait Rate

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Improved: Max. 40%

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AI-2200C Performance

- Average Waiting Time
- Long-Wait Rate

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.

Improved: Max. 40%

Improved: Max. 80%

Note: Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.
Variable Traveling Speed Elevator System: VSE (Optional)

With our industry-first variable traveling speed elevator system, an elevator can travel faster than its rated speed according to the number of passengers, ultimately reducing waiting and traveling time.

**Waiting Time Reduction**

According to our simulation, waiting time can be reduced up to approximately 15% when VSE is applied.

**Traveling Time Reduction**

Traveling time can be reduced by approximately 32% when the elevator travels from the bottom to the top floor directly under rapid mode in VSE.

**Conditions**
- Travel: 36m
- Floor height: 4.0m
- 10 floors
- Car load: 50%

**Maximum Speed and Car Load**

<table>
<thead>
<tr>
<th>Car Load (%)</th>
<th>0%</th>
<th>50%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated speed</td>
<td>1.0 m/sec</td>
<td>1.25 m/sec (2-3 persons)</td>
<td>1.5 m/sec (6-9 persons)</td>
</tr>
<tr>
<td>1.0 m/sec (Rated speed)</td>
<td>1.25 m/sec (2-3 persons)</td>
<td>1.5 m/sec (6-9 persons)</td>
<td>1.6 m/sec (10-12 persons)</td>
</tr>
<tr>
<td>1.25 m/sec (2-3 persons)</td>
<td>1.5 m/sec (6-9 persons)</td>
<td>1.6 m/sec (10-12 persons)</td>
<td></td>
</tr>
<tr>
<td>1.5 m/sec (6-9 persons)</td>
<td>1.6 m/sec (10-12 persons)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The Variable Traveling Speed Elevator System is applicable to elevators with a rated speed of 1.0 m/sec.

**Efficiency**

**Space-saving**

**Machine-room-less Elevators**

As all equipment is installed within the hoistway, there are fewer restrictions on building design except for the actual space required for the hoistway. Architects and interior designers have more design freedom.
For Safe Boarding

Door Safety Devices
Our reliable safety devices ensure that the doors are clear to open and close. Depending on the type of sensor, the detection area differs. Please refer to page 16 for details.

Multi-beam Door Sensor

Hall Motion Sensor: HMS
(Optional for CO doors only)

Emergency Situations

Emergency Operations
To ensure passenger safety, our elevators are equipped with functions for emergencies like a power failure, fire or earthquake.

Power failure

Mitsubishi Emergency Landing Device: MELD (Optional)
Upon power failure, a car automatically moves to the nearest floor using a rechargeable battery to facilitate the safe evacuation of passengers.

Operation by Emergency Power Source--Automatic: OEPS (Optional)
Upon power failure, predetermined car(s) use a building’s emergency power supply to move to a specified floor and open the doors for passengers to evacuate. After all cars have arrived, predetermined car(s) resume normal operation.

Fire

Firefighters’ Emergency Operation: FE (Optional)
When the fire operation switch is activated, the car immediately returns to a predetermined floor. The car then responds only to car calls which facilitate firefighting and rescue operations.

Fire Emergency Return: FER (Optional)
When a key switch or a building’s fire alarm is activated, all cars immediately return to a specified floor and open the doors to facilitate the safe evacuation of passengers.

Earthquake

Earthquake Emergency Return: EER-P/EER-S (Optional)
When a primary and/or secondary wave seismic sensor is activated, all cars stop at the nearest floor and park there with the doors open to facilitate the safe evacuation of passengers.
**Car**

*Car Design Example*

- **Ceiling:** S00
- **Walls:** Stainless-steel, hairline-finish
- **Transom panel:** Stainless-steel, hairline-finish
- **Doors:** Stainless-steel, hairline-finish
- **Front return panels:** Stainless-steel, hairline-finish
- **Flooring:** PR803: Gray
- **Car operating panel:** CBV1-C710

*Car operating panel*

- **Car operating panel:** CBV1-C710

*Hall Design Example*

- **Jamb:** Stainless-steel, hairline-finish
- **Doors:** Stainless-steel, hairline-finish

*Hall position indicators and buttons*

- **Hall position indicators and buttons:** PIV1-A1010

**Features (1/2)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMERGENCY OPERATIONS AND FEATURES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Management System</td>
<td>BMS-GW</td>
<td>Each elevator’s status and operation can be monitored and controlled using a building management system which manages various facilities in the building via the interface for the elevator system.</td>
</tr>
<tr>
<td>Earthquake Emergency Return</td>
<td>EER-E</td>
<td>Upon activation of a primary or a secondary wave sensor, all stops at the nearest floor, and push the doors open to facilitate the safe evacuation of passengers.</td>
</tr>
<tr>
<td>Emergency Car Lighting</td>
<td>ECL</td>
<td>Car lighting which turns on immediately when power fails, providing a minimum level of lighting within the car. (Choice of dry-cell battery or trickle-charge battery.)</td>
</tr>
<tr>
<td>Fire Emergency Return</td>
<td>FER</td>
<td>Upon activation of a fire switch or by activation of the alarm, the doors are opened at all stops immediately which is a specified evacuation floor and the doors open to facilitate the safe evacuation of passengers.</td>
</tr>
<tr>
<td>Firefighter’s Emergency Operation</td>
<td>FE</td>
<td>During fire, when the fire operation switch is activated, the car calls of a specified car and at all calls are canceled and the car immediately returns to a predetermined floor. The car then responds only to car calls which facilitate the fighting and rescue operation.</td>
</tr>
<tr>
<td>Lighting: Central lighting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceiling: Painted steel (Y033)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless-steel, hairline-finish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless-steel, hairline-finish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless-steel, hairline-finish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless-steel, hairline-finish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow Jamb: E-102</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DOOR OPERATION FEATURES**

- **Automatic Door Alignment Time Adjustment**
- **Automatic Door Speed Control**
- **Automatic Door Load Detector**
- **Door Nudging Feature**
- **Door Self-diagnosis**
- **Electronic Door Arm**
- **Extended Door-open Button**
- **Hall Motion Sensor**
- **Multi-beam Door Sensor**
- **Open with Hall Button**
- **Repeated Door Close**
- **Safety Door Edge**

**OPERATIONAL AND SERVICE FEATURES**

- **Attendant Service**
- **Automatic Bypass**
- **Automatic Hall Call Registration**

**Notes:**

- *1: Maximum number of floors: 30 floors*
- *2: Some letters of the alphabets are not available. Please consult our local agents for details.
- Actual colors may differ slightly from those shown.
- Please refer to the design guide for details and other designs.
### Features (2/2)

#### OPERATIONAL AND SERVICE FEATURES (Continued from the previous page.)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stopped Operation for Group Control Microprocessor</td>
<td>GCBn</td>
<td>All operation by car controllers which automatically maintains elevator operations in the event that a malfunction or transmission time in the group controller has failed.</td>
</tr>
<tr>
<td>Car Call Cancelling</td>
<td>CCC</td>
<td>When a car has responded to the call for one direction, the system remains active 40 s in the other direction and cancels the call from the memory.</td>
</tr>
<tr>
<td>Car Fan Shut Off — Automatic</td>
<td>CFO-A</td>
<td>If there are no calls for a specified period, the car ventilation fans automatically turn off to conserve energy.</td>
</tr>
<tr>
<td>Car Light Shut Off — Automatic</td>
<td>CLO-A</td>
<td>If there are no calls for a specified period, the car lighting will automatically turn off to conserve energy.</td>
</tr>
<tr>
<td>Continuity of Service</td>
<td>COS</td>
<td>A service which is experiencing trouble is automatically withdrawn from group control operation to prevent small group performance.</td>
</tr>
<tr>
<td>Elevator and Security System Interface</td>
<td>EL-SCA, EL-SC</td>
<td>Special automatic safety hazard security devices trigger predetermined elevator operation such as permission of access to private floors, automatic registration of a hall call, and a safe landing, and priority service.</td>
</tr>
<tr>
<td>False Call Cancelling — Automatic</td>
<td>FC-A</td>
<td>If a car has stopped at a call and does not correspond to the call at all, the car will automatically move to the nearest floor where the doors open.</td>
</tr>
<tr>
<td>Table Call Cancelling — Automatic</td>
<td>FCC-P</td>
<td>A coupon button is pressed, it can be canceled by quickly pressing the same button again twice.</td>
</tr>
<tr>
<td>Independent Service</td>
<td>IND</td>
<td>Exclusive operation where a car is withdrawn from group control operation for independent service, such as maintenance or repair, and responds only to car calls.</td>
</tr>
<tr>
<td>Non-service to Specific Floors — Car Button Type</td>
<td>NS-CB</td>
<td>To enhance security, service to specific floors can be disabled using the car operating panel. This function is automatically deactivated during emergency operation.</td>
</tr>
<tr>
<td>Non-service to Specific Floors — Switch/Time Type</td>
<td>NS-NT</td>
<td>To enhance security, service to specific floors can be disabled using a manual or timer switch. This function is automatically deactivated during emergency operation.</td>
</tr>
<tr>
<td>Non-service Temporary Allowance for Car — Card Reader Type</td>
<td>NS-CA-C</td>
<td>To enhance security, service to specific floors can be disabled only by placing a card over a card reader. This function is automatically deactivated during emergency operation.</td>
</tr>
<tr>
<td>Out-of-service by Hall Key Switch</td>
<td>HOS-S, HOS-T</td>
<td>For maintenance or energy-saving measures, a car can be taken out of service temporarily by a key switch, or a hall key.</td>
</tr>
<tr>
<td>Out-of-service remote</td>
<td>RCS</td>
<td>A car switch on the standby, etc., or an out-of-service button at a floor with very few passengers and the car is not in use.</td>
</tr>
<tr>
<td>Overhead Loading Stop</td>
<td>OLS</td>
<td>All cars in a bank automatically make a stop at a predetermined floor on every trip without passengers, etc.</td>
</tr>
<tr>
<td>Regenerative Converter</td>
<td>PCSV</td>
<td>An elevator converter, powered regenerative by traction machine can be used by other elevators and return to the power system.</td>
</tr>
<tr>
<td>Return Operation</td>
<td>RET</td>
<td>Using key switch, a car can withdraw from group control operation and called to a specified floor. The car will park at that floor with the doors open, and not accept any calls until independent operations begin.</td>
</tr>
<tr>
<td>Safe Landing</td>
<td>SFL</td>
<td>If a car has stopped between floors due to some equipment malfunction, the controller checks the cause, and if it is considered safe to move the car, the car will move to the floor at a slow speed and the doors will open.</td>
</tr>
<tr>
<td>Save Car Service</td>
<td>SCS-B</td>
<td>Enhance security, service to specific floors can be disabled only by inserting service cards for cabins on the car operating panel. This function is automatically deactivated during emergency operation.</td>
</tr>
<tr>
<td>Variable Traveling Speed Elevator System</td>
<td>VSE</td>
<td>As a result of the number of passengers in the car, the car travels faster than the rated speed.</td>
</tr>
</tbody>
</table>

### GROUP CONTROL FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank separation Operation</td>
<td>BSO</td>
<td>Bell buttons and the call buttons of each button can be divided into several groups for independent group control operations to serve special floors or different floors.</td>
</tr>
<tr>
<td>Close Car Priority Service</td>
<td>CNPS</td>
<td>A function to give priority allocation to the car closest to the location where a call has been pressed, to ensure the closing doors of the car closest to the pressed hall call button in that floor (cannot be combined with hall position indicators).</td>
</tr>
<tr>
<td>Congested Floor Service</td>
<td>CFS</td>
<td>The timing of car allocation and the number of cars to be allocated to floors when meeting heavy traffic in hall lobbies or the traffic management of new cars controlled, according to the detected traffic density data for those floors.</td>
</tr>
<tr>
<td>Destination-Oriented Allocation System</td>
<td>DOAS</td>
<td>When a passenger enters a destination floor at a hall, the hall operating panel indicates which car will be able to serve the passenger. This passenger does not call the car, activation of the car is decided by destination preference in combination with the cars and minimum waiting and traveling time.</td>
</tr>
<tr>
<td>Down Peak Service</td>
<td>DPS</td>
<td>Controls the number of cars to be allocated and the timing of car allocation in order to meet increased demands for downward travel during off-peak hours, etc. This function enables car to be mininized for minimum passenger waiting time.</td>
</tr>
<tr>
<td>Elevator Call System with smartphone</td>
<td>ELCS-SP</td>
<td>As an elevator service by accessing a dedicated website with a smartphone. By eliminating the need to touch a call button in the elevator lobby or car, the system provides forward convenience and comfort to users.</td>
</tr>
</tbody>
</table>

### SIGNAL AND DISPLAY FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary Car Operating</td>
<td>ACS</td>
<td>An additional car control panel which can be installed in the large-capacity elevators, mainly traffic elevators, etc.</td>
</tr>
<tr>
<td>Basic Announcement</td>
<td>XAN-B</td>
<td>A synthetic voice (and optionally) announcement of elevator status where an elevator provides the option to turn on or off it. Available in the following languages:</td>
</tr>
<tr>
<td>Car Alarm Chime</td>
<td>AECB (car)</td>
<td>Electronic chimes used to indicate that a car will soon arrive. The chimes are mounted near an entrance of a hall and in front of the door of an entrance of a car.</td>
</tr>
<tr>
<td>Car Information Display</td>
<td>CID</td>
<td>This 5.7-inch LCD for car operating panels shows the date and time, car position, travel direction, and elevator status messages.</td>
</tr>
<tr>
<td>Flashing Hall Lantern</td>
<td>FHL</td>
<td>A bell tower, which corresponds to a car service direction, flashes to indicate the car’s service zone.</td>
</tr>
<tr>
<td>Hall Message Display</td>
<td>HMD</td>
<td>This feature is effective for buildings with two main (lobby) floors. The floor designated as the main floor is indicated by a flashing or flashing and steady (to indicate that the main floor is occupied) hall lantern.</td>
</tr>
<tr>
<td>Hall Message Display</td>
<td>HMD-S</td>
<td>This feature is effective for buildings with two main (lobby) floors. The floor designated as the 2nd floor is indicated by a flashing or flashing and steady (to indicate that the 2nd floor is occupied) hall lantern.</td>
</tr>
<tr>
<td>Immediate Prediction Indication</td>
<td>AL</td>
<td>When a passenger has registered a hall call, the best car to respond to that call is immediately selected, the corresponding hall lamp lights up, and a chime sounds once to indicate which door will open.</td>
</tr>
<tr>
<td>Intercommunication System</td>
<td>ITP</td>
<td>A system which allows passengers to communicate with elevators inside a car and the building personnel.</td>
</tr>
<tr>
<td>Second Car Prediction</td>
<td>TCP</td>
<td>When a call is registered, the corresponding hall and service direction lights up, and a chime sounds once to indicate which door will open.</td>
</tr>
</tbody>
</table>

### Energy-saving Operation — Number of Cars

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy-saving Operation</td>
<td>ESO-N</td>
<td>To save energy, the number of service cars is automatically reduced to some extent, but not so much that it adversely affects passenger waiting time.</td>
</tr>
<tr>
<td>Forced Door Stop</td>
<td>FFS</td>
<td>A car in a shaft automatically make a stop at a predetermined floor on every trip without passengers, etc.</td>
</tr>
<tr>
<td>Light-load Car Priority service</td>
<td>UCP</td>
<td>When traffic is light, energy or lightly-loaded cars are given higher priority to respond to hall calls in order to minimize passenger waiting time. (Cannot be combined with hall position indicators)</td>
</tr>
<tr>
<td>Lunchtime Service</td>
<td>LTS</td>
<td>During the first half of lunchtime, calls for restaurant floors are served with higher priority, and during the last half of lunchtime, the number of cars allocated to the restaurant floor are given priority for each car and the door opening and closing are all controlled on predetermined data.</td>
</tr>
<tr>
<td>Main Floor Changeover Operation</td>
<td>TFS</td>
<td>The feature is effective for buildings with two main (lobby) floors. The floor designated as the “headroom” is a general control operation (cars are charged in necessary using internal switch)</td>
</tr>
<tr>
<td>Main Floor Parking</td>
<td>MPA</td>
<td>An available car always parks on the main lobby floor with the doors open.</td>
</tr>
<tr>
<td>Special Car Priority Service</td>
<td>SCP</td>
<td>Service, such as floors with VIP rooms or executive rooms, are given higher priority for car allocation when a call is made on those floors. (Cannot be combined with halposition indicators)</td>
</tr>
<tr>
<td>Special Floor Priority Service</td>
<td>SFP</td>
<td>Service, such as floors with VIP rooms in executive rooms, are given higher priority for car allocation when a call is made on those floors. (Cannot be combined with halposition indicators)</td>
</tr>
<tr>
<td>Up Peak Operation</td>
<td>UPS</td>
<td>If a car is withdrawn from group control operation via WP service operation when activated, the car responds only to existing car calls, moves to a specified floor and parks there with the doors open. The car then responds only to car calls.</td>
</tr>
</tbody>
</table>

### Notes

- 1C-2C (1-car selector control) — Standard, 2C-8C (2-car group control system) — Optional
- 2A-2C (2 to 4-car group control system) — Optional, 2A-2BDC (2 to 8-car group control system) — Optional
- 2C-8C (2 to 8-car group control system) — Optional
- Not applicable
- #1: When the operation system is 1C-2B
- #2: Please consult your local elevator manufacturer for production items, etc.
- #3: When the DOAS is applied, the #2: AECB is used in the AECB portion.
**Basic Specifications**

### Horizontal Dimensions <1-Door 1-Gate>

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated speed (m/sec)</th>
<th>Rated capacity (kg)</th>
<th>Door type</th>
<th>Entrance width (mm)</th>
<th>Counterweight position</th>
<th>Car internal dimensions (mm)</th>
<th>Minimum hoistway dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CO</td>
<td>960 Standard</td>
<td>Side</td>
<td>100x1400</td>
<td>1960x1720 (1960x1735)</td>
</tr>
<tr>
<td>P6</td>
<td>8</td>
<td>1.0</td>
<td>630</td>
<td>960</td>
<td>Standard</td>
<td>Side</td>
<td>100x1400</td>
<td>1960x1720 (1960x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.6</td>
<td></td>
<td></td>
<td>960 Optional</td>
<td>Side</td>
<td>100x1400</td>
<td>1960x1720 (1960x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.75</td>
<td></td>
<td></td>
<td>960 Optional</td>
<td>Side</td>
<td>100x1400</td>
<td>1960x1720 (1960x1735)</td>
</tr>
<tr>
<td>P11</td>
<td>11</td>
<td>2.5</td>
<td>825</td>
<td>CO</td>
<td>960 Standard</td>
<td>Side</td>
<td>1350x1400</td>
<td>2660x1720 (2660x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Standard</td>
<td>Side</td>
<td>1350x1400</td>
<td>2660x1720 (2660x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Standard</td>
<td>Side</td>
<td>1350x1400</td>
<td>2660x1720 (2660x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Optional</td>
<td>Side</td>
<td>1350x1400</td>
<td>2660x1720 (2660x1735)</td>
</tr>
<tr>
<td>P11</td>
<td>13</td>
<td>2.0</td>
<td>1000</td>
<td>CO</td>
<td>960 Standard</td>
<td>Side</td>
<td>1600x1400</td>
<td>2960x1720 (2960x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Standard</td>
<td>Side</td>
<td>1600x1400</td>
<td>2960x1720 (2960x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Standard</td>
<td>Side</td>
<td>1600x1400</td>
<td>2960x1720 (2960x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Optional</td>
<td>Side</td>
<td>1600x1400</td>
<td>2960x1720 (2960x1735)</td>
</tr>
<tr>
<td>P16</td>
<td>16</td>
<td>2.5</td>
<td>1500</td>
<td>CO</td>
<td>960 Standard</td>
<td>Side</td>
<td>100x2100</td>
<td>2260x1720 (2260x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Standard</td>
<td>Side</td>
<td>100x2100</td>
<td>2260x1720 (2260x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>960 Standard</td>
<td>Side</td>
<td>100x2100</td>
<td>2260x1720 (2260x1735)</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>2.0</td>
<td>1750</td>
<td>CO</td>
<td>960 Standard</td>
<td>Side</td>
<td>100x2100</td>
<td>2260x1720 (2260x1735)</td>
</tr>
<tr>
<td>P21</td>
<td>21</td>
<td></td>
<td>2100</td>
<td>CO</td>
<td>1100 Standard</td>
<td>Side</td>
<td>100x2100</td>
<td>2260x1720 (2260x1735)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1100 Optional</td>
<td>Side</td>
<td>100x2100</td>
<td>2260x1720 (2260x1735)</td>
</tr>
</tbody>
</table>

### Vertical Dimensions <1-Door 1-Gate & 1-Door 2-Gate>

<table>
<thead>
<tr>
<th>Rated speed (m/sec)</th>
<th>Rated capacity (kg)</th>
<th>Travel (m)</th>
<th>Minimum number of floors</th>
<th>Minimum overhead (mm)</th>
<th>Minimum pit depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>630, 825, 1000</td>
<td>41.10</td>
<td>22</td>
<td>4150</td>
<td>1500</td>
</tr>
<tr>
<td>1.6</td>
<td>630, 825, 1000</td>
<td>41.10</td>
<td>30</td>
<td>4500</td>
<td>1600</td>
</tr>
<tr>
<td>1.75</td>
<td>630, 825, 1000</td>
<td>41.10</td>
<td>26</td>
<td>4500</td>
<td>1650</td>
</tr>
<tr>
<td>2.0</td>
<td>825, 1000</td>
<td>41.10</td>
<td>30</td>
<td>4500</td>
<td>1500</td>
</tr>
<tr>
<td>2.5</td>
<td>825, 1000</td>
<td>41.10</td>
<td>30</td>
<td>4500</td>
<td>1600</td>
</tr>
</tbody>
</table>

### Specifications for Variable Traveling Speed Elevator System (Optional) <1-Door 1-Gate & 1-Door 2-Gate>

<table>
<thead>
<tr>
<th>Rated speed (m/sec)</th>
<th>Speed (m/sec)</th>
<th>Rated capacity (kg)</th>
<th>Travel (m)</th>
<th>Minimum overhead (mm)</th>
<th>Minimum pit depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0/1.25/1.5/1.6</td>
<td>1.0</td>
<td>630, 825, 1000</td>
<td>41.10</td>
<td>4150</td>
<td>1500</td>
</tr>
<tr>
<td></td>
<td>1200, 1350, 1600</td>
<td>4250</td>
<td>1650</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Notes:
* This table shows standard specifications without counterweight safety. Please consult our local agents for other specifications.
* Some specifications require more than 2600mm as a minimum floor height. Please consult our local agents if the floor height is less than entrance height PH + 700mm, and the elevator is 1 Door 2 Gate.
* Vertical Hoistway Dimensions (VHD) and VPD shown in tables, "Horizontal Dimensions" and "Vertical Dimensions", on the pages 19 to 21 are applicable to the Variable Traveling Speed Elevator System.
* Minimum overhead (OH) and pit depth (PD) may vary depending on conditions. Please consult our local agents for details.

Dimensional information shown here conforms to GB/T 7588.1/-2-2020.
## Important Information on Elevator Planning

### Work Not Included in Elevator Contract

The following items are excluded from our elevator installation work. Their conditions and other details are to be confirmed to the statement of GB/T 7588.1-2020, local laws or our requirements on the responsibility of the building owner or general contractor.

- Architectural finishing of walls and floors in the vicinity of the entrance hall after installation has been completed.
- Construction of an Illuminated, ventilated and waterproofed hoistway.
- The provision of openings and supporting members as required for equipment installation.
- The provision of separate beams when the hoistway dimensions markedly exceed the specifications, and intermediate beams and separator partitions when two or more elevators are installed.
- The provision of an emergency exit door, inspection door and pit access door, when required, and access to the doors.
- All other work related to building construction.
- The provision of the main power and power for illumination in the hoistway by laying of the feeder wiring from the electrical switch boxes in electrical room into the hoistway.
- The provision of outlets and laying of the wiring in the hoistway, plus the power from the electrical switch box.
- The laying of conduits and wiring between the elevator pit and the terminating point for the devices installed outside the hoistway, such as the emergency bell, intercom, monitoring and security devices.
- The power consumed in installation work and test operations.
- All the necessary building materials for grouting in brackets, bolts, etc.
- The test provision and subsequent alteration as required, and eventual removal of the scaffolding as required by the elevator contractor, and any other protection of the work as may be required during the process.
- The provision of a suitable, locked space for the storage of elevator equipment and tools during elevator installation.
- The security system, such as a card reader, connected to our elevator controller, when supplied by the building owner or general contractor.

### Elevator Site Requirements

- The temperature of the elevator hoistway shall be below 40°C.
- The following conditions are required for maintaining elevator performance:
  a. The relative humidity shall be below 90% on a monthly average and below 95% on a daily average.
  b. Prevention against icing and condensation occurring due to a rapid drop in the temperature shall be provided in the elevator hoistway.
  c. The elevator hoistway shall be finished with mortar or other materials so as to prevent concrete dust.
- Voltage fluctuation shall be within a range of ±5% to ±10%.

### Ordering Information

Please include the following information when ordering or requesting estimates:

- The desired number of units, speed and loading capacity.
- The number of stops or number of floors to be served.
- The total elevator travel and each floor-to-floor height.
- Operation system.
- Selected design and size of car.
- Entrance design.
- Signal equipment.
- A sketch of the part of the building where the elevators are to be installed.
- The voltage, number of phases, and frequency of the power source for the motor and lighting.

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### Dimensional information shown here conforms to GB/T 7588.1.2-2020.
State-of-the-Art Factories...
For the Environment. For Product Quality.

Our elevators and escalators are currently operating in approximately 90 countries around the globe. Built placing priority on safety, our elevators, escalators and building system products are renowned for their excellent efficiency, energy savings and comfort. The technologies and skills cultivated at the Inazawa Building Systems Works in Japan and 12 global manufacturing factories are utilized in a worldwide network that provides sales, installation and maintenance in support of maintaining and improving product quality. As a means of contributing to the realization of a sustainable society, we consciously consider the environment in business operations, proactively work to realize a low-carbon, recycling-based society, and promote the preservation of biodiversity.

ISO9001/14001 certification

Mitsubishi Electric Building Solutions Corporation Inazawa Building Systems Works has acquired ISO 9001 certification from the International Organization for Standardization based on a review of quality management. The plant has also acquired environmental management system standard ISO 14001 certification.

Safety Tips: Be sure to read the instruction manual fully before using this product.