PASSENGER ELEVATORS
MACHINE-ROOM-LESS SYSTEM

NEXIEZ -MRL

2nd Edition
Utilizing its technological prowess and extensive experience, Mitsubishi Electric has 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.

**Principle**

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.

Mitsubishi Electric 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 at the highest level in all products and business activities. While priority is placed on consideration for the environment.

As the times change, Mitsubishi Electric promises to utilize the collective strengths of its advanced and environmental technologies to offer its customers safe and reliable products while contributing to society.

**Contents**

- Introduction 5–6
- Ecology 7–8
- Efficiency 9–11
- Space-saving 12
- Safety 13–14
- Standard Design 15
- Features 16–18
- Basic Specifications 19–21
- Important Information on Elevator Planning 22

**Application**

Note: The applicable range of the rated capacity may differ depending on the manufacturing factory, please consult our local agents for details.
Welcome to a New Era in Vertical Transportation
Introducing the NEXIEZ...

...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 Mitsubishi Electric products. Regardless of the use or purpose, the NEXIEZ is a best match solution for virtually any elevator installation.
Energy-saving effects: Approximately 35%.*

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

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

Reusing Energy

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor</th>
<th>Traction machine</th>
<th>Motor drive</th>
<th>Control circuit</th>
<th>Power consumption / CO₂ emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>AC2 control</td>
<td>induction motor</td>
<td>AC2 control</td>
<td>relay</td>
<td>100%</td>
</tr>
<tr>
<td>1980</td>
<td>AC2 control</td>
<td>induction motor</td>
<td>VVVF* control</td>
<td>Microcomputer</td>
<td>37%</td>
</tr>
<tr>
<td>2000</td>
<td>Permanent-magnet motor</td>
<td>Warm gear</td>
<td>VVVF, AC2 control</td>
<td></td>
<td>30%</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td>Gearless</td>
<td>VVVF, AC2 control</td>
<td></td>
<td>20%</td>
</tr>
</tbody>
</table>

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

Advantages of LEDs

- **Service life (hr)**
  - LED: 25000
  - Incandescent lamp: 2000
  - **Approximately 12.5 times longer**

- **Power consumption (W)**
  - LED: 32.5
  - Incandescent lamp: 132
  - **Approximately 75% reduction**

Maximizing Operational Efficiency and Minimizing Energy Consumption

Energy-saving Operation – Allocation Control: ESO-W (EAI-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.
Cooperative Optimization Assignment (ΣAI-2200C)

When a hall call is registered, the algorithm assumes a near-future 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 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.

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.

Allocating Passengers to Cars Depending on Destination Floors

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.

### ΣAI-2200C Performance

<table>
<thead>
<tr>
<th>Hall call</th>
<th>Traveling direction</th>
<th>Car call</th>
<th>Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning up peak</td>
<td>A</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>Morning up peak</td>
<td>B</td>
<td>E</td>
<td>C</td>
</tr>
<tr>
<td>Lunchtime</td>
<td>C</td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>Evening down peak</td>
<td>D</td>
<td>G</td>
<td>E</td>
</tr>
</tbody>
</table>

### Average Waiting Time

- **Morning up peak:** Improved: Max. 40%
- **Daytime:** Improved: Max. 80%
- **Evening down peak:**

### Long-Wait Rate

- **Morning up peak:**
- **Daytime:**
- **Evening down peak:**

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

### ΣAI-2200C (Latest)

<table>
<thead>
<tr>
<th>Hall call</th>
<th>Traveling direction</th>
<th>Car call</th>
<th>Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Morning up peak</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>B</td>
<td>Lunchtime</td>
<td>D</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>Evening down peak</td>
<td>D</td>
<td>C</td>
</tr>
</tbody>
</table>

### Improved: Max. 40% Improved: Max. 80%

### Daytime

- **0-20 sec:**
- **20-40 sec:**
- **40-60 sec:**

### Lunchtime

- **0-20 sec:**
- **20-40 sec:**
- **40-60 sec:**

### Evening

- **0-20 sec:**
- **20-40 sec:**
- **40-60 sec:**

### Note:

- Simulated with 6 cars, 20 persons each at 2.5m/sec for 15 stops.
- Standard arrangement of hall fixtures (No hall lantern* is provided.)
- Cars receive destination information from all floors to provide the best service for more complex traffic conditions throughout the day.

### Example of hall arrangement

Note:

* Hall lanterns are available as optional.
Variable Traveling Speed Elevator System: VSE (Optional)

With Mitsubishi Electric’s 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 Mitsubishi Electric’s 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%

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.

Efficiency

Space-saving
Safety

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.

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/Manual: 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/EEER-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

Ceiling: S00

Car operating panel

For front return panel

Hall

Narrow Jamb: E-102

Hall Design Example

Jamb ——— SUS-HL
Doors ——— SUS-HL
Hall position indicator and button —— PVII-A1010N

Hall position indicators and buttons

With plastic case

PVII-A1010N 2-beam
PVII-A1020N 1-beam

Segment LED indicators 2beam
Tactile button with yellow-orange lighting

Notes:
*1: Maximum number of floors: 22 floors
*2: Some letters of the alphabet are not available. Please consult our local agents for details.

Features (1/2)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
<th>1C to 2C</th>
<th>3C to 8C</th>
<th>9C to 12C</th>
<th>13C to 20C</th>
<th>21C to 36C</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMERGENCY OPERATIONS AND FEATURES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Management System/GateWay</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>
<td><img src="image1" alt="Icon" /></td>
<td><img src="image2" alt="Icon" /></td>
<td><img src="image3" alt="Icon" /></td>
<td><img src="image4" alt="Icon" /></td>
<td><img src="image5" alt="Icon" /></td>
</tr>
<tr>
<td>Earthquake Emergency Return</td>
<td>EER-P</td>
<td>Upon activation of primary or secondary wave sensors, all cars stop at the nearest floor, and cars open to facilitate the safe evacuation of passengers.</td>
<td><img src="image6" alt="Icon" /></td>
<td><img src="image7" alt="Icon" /></td>
<td><img src="image8" alt="Icon" /></td>
<td><img src="image9" alt="Icon" /></td>
<td><img src="image10" alt="Icon" /></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>
<td><img src="image11" alt="Icon" /></td>
<td><img src="image12" alt="Icon" /></td>
<td><img src="image13" alt="Icon" /></td>
<td><img src="image14" alt="Icon" /></td>
<td><img src="image15" alt="Icon" /></td>
</tr>
<tr>
<td>Fire Emergency Return</td>
<td>FER</td>
<td>Upon activation of a key switch or building alarm, all cars are canceled, and the cars immediately return to a specified evacuation floor and the doors open to facilitate the safe evacuation of passengers.</td>
<td><img src="image16" alt="Icon" /></td>
<td><img src="image17" alt="Icon" /></td>
<td><img src="image18" alt="Icon" /></td>
<td><img src="image19" alt="Icon" /></td>
<td><img src="image20" alt="Icon" /></td>
</tr>
<tr>
<td>Firefighters' Emergency Operation</td>
<td>FE</td>
<td>Activating the fire alarm switch, the car will stop at a specified floor and the doors open to facilitate the safe evacuation of passengers. After all cars have arrived, predetermined cars resume normal operation.</td>
<td><img src="image21" alt="Icon" /></td>
<td><img src="image22" alt="Icon" /></td>
<td><img src="image23" alt="Icon" /></td>
<td><img src="image24" alt="Icon" /></td>
<td><img src="image25" alt="Icon" /></td>
</tr>
<tr>
<td>Mitsubishi Elevators &amp; Escalators Monitoring and Control System</td>
<td>WP-W</td>
<td>Each elevator's status and operation can be monitored and controlled using an advanced Web-based technology which provides an interface through personal computers. (Special optional features such as preparation of traffic statistics and analysis are also available.)</td>
<td><img src="image26" alt="Icon" /></td>
<td><img src="image27" alt="Icon" /></td>
<td><img src="image28" alt="Icon" /></td>
<td><img src="image29" alt="Icon" /></td>
<td><img src="image30" alt="Icon" /></td>
</tr>
<tr>
<td>Door open Time Adjustment</td>
<td>DOT</td>
<td>The time doors are open will automatically be adjusted depending on the type of hall doors. (Cannot be combined with the SR or Multi-beam Door Sensor feature.)</td>
<td><img src="image31" alt="Icon" /></td>
<td><img src="image32" alt="Icon" /></td>
<td><img src="image33" alt="Icon" /></td>
<td><img src="image34" alt="Icon" /></td>
<td><img src="image35" alt="Icon" /></td>
</tr>
<tr>
<td>Door open Speed Control</td>
<td>DSAC</td>
<td>Door speed can be set to be adjusted using a dedicated setting. (Cannot be combined with the SR or Multi-beam Door Sensor feature.)</td>
<td><img src="image36" alt="Icon" /></td>
<td><img src="image37" alt="Icon" /></td>
<td><img src="image38" alt="Icon" /></td>
<td><img src="image39" alt="Icon" /></td>
<td><img src="image40" alt="Icon" /></td>
</tr>
<tr>
<td>Door Load Detector</td>
<td>DLD</td>
<td>Door load on each car, which can depend on the type of hall doors, can be monitored to adjust the door speed, thereby making the door speed consistent throughout all floors.</td>
<td><img src="image41" alt="Icon" /></td>
<td><img src="image42" alt="Icon" /></td>
<td><img src="image43" alt="Icon" /></td>
<td><img src="image44" alt="Icon" /></td>
<td><img src="image45" alt="Icon" /></td>
</tr>
<tr>
<td>Door Nudging Feature — With Buzzer</td>
<td>NDG</td>
<td>Door nudging feature operates and sounds the buzzer slowly when the door remains open for longer than the specified period. (With the ANO-8 or ANO-9 feature, a beep and voice guidance are output instead of the buzzer.)</td>
<td><img src="image46" alt="Icon" /></td>
<td><img src="image47" alt="Icon" /></td>
<td><img src="image48" alt="Icon" /></td>
<td><img src="image49" alt="Icon" /></td>
<td><img src="image50" alt="Icon" /></td>
</tr>
<tr>
<td>Door Sensor Self-diagnosis</td>
<td>DDDA</td>
<td>Failure of contact type or non-contact type door sensors is checked automatically, and a problem diagnosis message is displayed on the panel. The closing timing is delayed and the closing speed is reduced to maintain elevator service and ensure passenger safety.</td>
<td><img src="image51" alt="Icon" /></td>
<td><img src="image52" alt="Icon" /></td>
<td><img src="image53" alt="Icon" /></td>
<td><img src="image54" alt="Icon" /></td>
<td><img src="image55" alt="Icon" /></td>
</tr>
<tr>
<td>Electronic Doorman</td>
<td>EDM</td>
<td>Operation times are monitored using the SR or Multi-beam Door Sensor feature that detects passengers boarding or exiting.</td>
<td><img src="image56" alt="Icon" /></td>
<td><img src="image57" alt="Icon" /></td>
<td><img src="image58" alt="Icon" /></td>
<td><img src="image59" alt="Icon" /></td>
<td><img src="image60" alt="Icon" /></td>
</tr>
<tr>
<td>Extended Door-open Button</td>
<td>DEO-TU</td>
<td>When the button inside a car is pressed, the doors will remain open longer to allow smooth boarding of passengers or loading/unloading of baggage.</td>
<td><img src="image61" alt="Icon" /></td>
<td><img src="image62" alt="Icon" /></td>
<td><img src="image63" alt="Icon" /></td>
<td><img src="image64" alt="Icon" /></td>
<td><img src="image65" alt="Icon" /></td>
</tr>
<tr>
<td>Hall Motion Sensor</td>
<td>HMS</td>
<td>Infrared light is used to scan a 50 area near the open doors to detect passengers or objects.</td>
<td><img src="image66" alt="Icon" /></td>
<td><img src="image67" alt="Icon" /></td>
<td><img src="image68" alt="Icon" /></td>
<td><img src="image69" alt="Icon" /></td>
<td><img src="image70" alt="Icon" /></td>
</tr>
<tr>
<td>Multi-beam Door Sensor — Signal Type</td>
<td>MBSS</td>
<td>Multiple infrared light beams cover a full width of the door, and the signal is transmitted to the elevator system. (Cannot be combined with any of the following: SR or Multi-beam Door Sensor feature.)</td>
<td><img src="image71" alt="Icon" /></td>
<td><img src="image72" alt="Icon" /></td>
<td><img src="image73" alt="Icon" /></td>
<td><img src="image74" alt="Icon" /></td>
<td><img src="image75" alt="Icon" /></td>
</tr>
<tr>
<td>Reopen with Hall Button</td>
<td>ROHB</td>
<td>Automatic door open/close operation can be reversed by pressing the hall button corresponding to the traffic direction of the car.</td>
<td><img src="image76" alt="Icon" /></td>
<td><img src="image77" alt="Icon" /></td>
<td><img src="image78" alt="Icon" /></td>
<td><img src="image79" alt="Icon" /></td>
<td><img src="image80" alt="Icon" /></td>
</tr>
<tr>
<td>Repeated Door-close</td>
<td>RDC</td>
<td>Should an obstacle prevent the doors from closing, the doors will repeatedly open and close until the obstacle is cleared.</td>
<td><img src="image81" alt="Icon" /></td>
<td><img src="image82" alt="Icon" /></td>
<td><img src="image83" alt="Icon" /></td>
<td><img src="image84" alt="Icon" /></td>
<td><img src="image85" alt="Icon" /></td>
</tr>
<tr>
<td>Safety Door Edge</td>
<td>SDE</td>
<td>The sensor type edge detects passengers or objects during door closing. (Cannot be combined with the MRD feature.)</td>
<td><img src="image86" alt="Icon" /></td>
<td><img src="image87" alt="Icon" /></td>
<td><img src="image88" alt="Icon" /></td>
<td><img src="image89" alt="Icon" /></td>
<td><img src="image90" alt="Icon" /></td>
</tr>
<tr>
<td>Safety Ray</td>
<td>SR</td>
<td></td>
<td><img src="image91" alt="Icon" /></td>
<td><img src="image92" alt="Icon" /></td>
<td><img src="image93" alt="Icon" /></td>
<td><img src="image94" alt="Icon" /></td>
<td><img src="image95" alt="Icon" /></td>
</tr>
</tbody>
</table>

Notes:
1: When 2C-2BC, please consult our local agents.
2: Please consult our local agents for the production terms, etc.
Features (2/2)

**OPERATIONAL AND SERVICE FEATURES**

- **Attendant Service**
  - AAS
  - Exclusive operation where an elevator can be operated using the buttons and switches located in the car operating panel, allowing smooth boarding of passengers or loading of baggage.
- **Automatic Bypass**
  - ABB
  - A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency.
- **Automatic Hall Call System**
  - AHS
  - One car carrier carries all waiting passengers, and no empty cars will automatically be assigned for the remaining passengers.
- **Backup Operation for Group Control Microprocessor**
  - BCR
  - An operation by car controllers which automatically maintains elevator operation in an event that an algorithm or transmission line in the group controller has failed.
- **Car Call Cancelling**
  - CCC
  - When a car has responded to the final call in one direction, the system regards the remaining calls in the other direction as mistakes and clears them from the memory.
- **Car Fan Shut-Off**
  - CFOS
  - When there are no calls for a specified period, the ventilation fans will automatically turn off to conserve energy.
- **High Lift-Up Call**
  - HLC
  - If a press for a call is made for a specified period, the light will automatically turn off to conserve energy.
- **Continuity of Service**
  - CS
  - A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.
- **Elevator and Security System Interface**
  - EL-SIF
  - Personal authentication by building’s security device can trigger predetermined elevator operations such as permission to access to private floors, reservation of a staff call and destination floor and VIP operation.
- **False Call Cancelling**
  - FCC
  - If the number of registered car calls does not correspond to the car load, all car calls are cancelled to avoid unnecessary stops.
- **False Call Cancelling – Car Button Type**
  - FCC-C
  - If a wrong car button is pressed, it can be canceled by quickly pressing the same button again twice.
- **Independent Service**
  - IND
  - Exclusive operation where a car is withdrawn from group control operation for independent use, such as maintenance or repair, and respond only to car calls.
- **Next Landing**
  - NL
  - The elevator doors are opened at a specified floor when the car doors are open, and the car automatically moves to the next or nearest floor when the doors open.
- **Non-service to Specific Floors – Car Button Type**
  - NS-C
  - To enhance security, services to specific floors can be disabled using the car operating panel. This function is automatically deactivated during emergency operation.
- **Non-service to Specific Floors – Supervisory Panel Type**
  - NS-S
  - To enhance security, services to specific floors can be disabled using a manual or timer switch. This function is automatically deactivated during emergency operation.
- **Non-service Temporary Operation for Car Call – Card Reader Type**
  - NSOR-C
  - To enhance security, car calls for destination floors can be registered only by placing a card over a card reader. This function is automatically deactivated during emergency operation.
- **Out-of-service by Hall Key Switch**
  - OSHS
  - For maintenance or energy-saving measures, a car can be taken out of service temporarily with a key switch or without a key switch on a specified hall.
- **Out-of-service – Remote**
  - ORS
  - With a switch on the supervisory panel, etc., a car can be specified to stop after responding to all car calls, and then automatically be taken out of service.
- **Overload Holding Stop**
  - OHS
  - A buzzer sounds to alert the passengers that the car is overloaded. The doors remain open and the car will not leave that floor unless enough passengers exit the car.
- **Regenerative Converter**
  - RC
  - For energy conservation, power regenerated by a traction machine can be used by other elevators in the building.
- **Return Operation**
  - ROT
  - Using a key switch on the supervisory panel, a car can be withdrawn from group control operation and called to a specified floor. The car will park on that floor with the doors open, and stop accepting only calls until independent operations begin.
- **Safe Landing**
  - SFL
  - 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 nearest floor at a low speed and the doors will open.
- **Secret Call Service**
  - SC
  - To enhance security, the car service can be made the destination floor of cars in the event that it adversely affects passenger waiting time.
- **Variable Traveling Specification System**
  - VSS
  - According to the number of passengers in the car, the car travels faster or slower than the rated speed.

**GROUP CONTROL FEATURES**

- **Bank Separation Operation**
  - BSO
  - Full buttons and the cars called by each button can be divided into several groups for independent group control operation to serve special needs or different floors.
- **Closest Car Priority Service**
  - CPN
  - A function to give priority allocation to the car closest to the floor where a call button has been pressed, so that the car does not miss the closest floor before the call button is pressed (on the floor). Note: cannot be combined with vertical positioning function.
- **Congested Floor Service**
  - CFS
  - The number of cars allocated and the number of floors allocated to floors where meeting rooms or bathrooms exist and the traffic intensity for short periods of time are considered according to the detected traffic density data for the day.
- **Destination On-Site Allocation System**
  - DAO
  - When a passenger enters a destination floor at an hall operating panel indicates, the car will serve the floor. The passenger does not need to press a button in the car. Depending passengers by destination prevents congestion in the car and minimizes waiting time.

**SIGNAL AND DISPLAY FEATURES**

- **Hall Information Display**
  - HID
  - A hall lantern, which corresponds to a car’s service direction, flashes to indicate that the car will stop there with the doors open.
- **Car Information Display**
  - CID
  - This 5.7-inch LCD for elevator halls shows the date and time, car position, travel direction and elevator status messages. This LCD (10.4- or 15-inch) for elevator halls shows the date and time, car position, travel direction and elevator status messages. In addition, customized video images can be displayed in full-screen or partial-screen formats.
- **Car LCD Position Indicator**
  - CIDP
  - A LED display, which indicates which doors will open.
- **Car Arrival Chime**
  - CIDC
  - An additional car control panel which can be installed for large-capacity elevators, heavy traffic elevators, etc.
- **Car LCD Position**
  - CIDP
  - A synthetic voice (and/or buzzer) alerts passengers inside a car that elevator operation has been temporarily interrupted by overloading or a similar cause. (Available in limited languages.)
- **Flashing Half Lantern**
  - FHL
  - A half-lantern style corresponding to a car’s service direction. Flashes to indicate that the car will stop there with the doors open.
- **Hall Information Display**
  - HID
  - This 5.7-inch LCD for elevator halls shows the date and time, car position, travel direction and elevator status messages. In addition, customized video images can be displayed in full-screen or partial-screen formats.
- **Immediate Priority Indication**
  - IPIN
  - When a passenger has registered a call, the best car to respond to that call is determined immediately, and the corresponding hall lantern lights up and a tone sounds once to indicate which doors will open.
- **Intercommunication System**
  - ITP
  - A system which allows communication between passengers inside a car and the building personnel.
- **Second Car Position**
  - SCP
  - A car call button with a frame when the number of calls exceeds the number of cars.
- **Some Car Button**
  - SCB
  - A car call button with a frame when the number of calls exceeds the number of cars.

**NOTES**

Notes: 1C/1C2 (1-car selective collective) - Standard, 2C/2C2 (2-car group control system) - Optional
-1A: 2C/2C2 (2-car group control system) - Optional, 2A200C (2- to 1C 1-car selective collective) - Optional
-2A: Standard - Optional
-3: Not applicable
-4: When the ODA is applied, AEC is 3, and the Safety Ray (SR) or Multi-beam Door Sensor feature should be installed.
-5: When the ODA is applied, AEC is 3, and the Safety Ray (SR) or Multi-beam Door Sensor feature should be installed.
## 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) (J)</th>
<th>Counterweight position</th>
<th>Car internal dimensions (mm)</th>
<th>Minimum hoistway dimensions (mm)</th>
<th>Minimum overhead (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P6</td>
<td>6</td>
<td>450</td>
<td>25</td>
<td>CO</td>
<td>800</td>
<td>Side</td>
<td>950x1100</td>
<td>1000x1100</td>
<td>1500+700</td>
</tr>
<tr>
<td>P7</td>
<td>7</td>
<td>550</td>
<td>25</td>
<td>CD</td>
<td>1100</td>
<td>Side</td>
<td>1000x1100</td>
<td>1050x1100</td>
<td>1550+700</td>
</tr>
<tr>
<td>P8</td>
<td>8</td>
<td>630</td>
<td>25</td>
<td>CD</td>
<td>1150</td>
<td>Side</td>
<td>1100x1400</td>
<td>1150x1400</td>
<td>1600+800</td>
</tr>
<tr>
<td>P11</td>
<td>11</td>
<td>825</td>
<td>25</td>
<td>CD</td>
<td>1350</td>
<td>Side</td>
<td>1350x1400</td>
<td>1400x1400</td>
<td>1750+900</td>
</tr>
<tr>
<td>P14</td>
<td>14</td>
<td>1050</td>
<td>25</td>
<td>CD</td>
<td>1600</td>
<td>Rear</td>
<td>1600x1400</td>
<td>1650x1400</td>
<td>2000+1000</td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1275</td>
<td>25</td>
<td>CD</td>
<td>2000</td>
<td>Rear</td>
<td>2000x1400</td>
<td>2050x1400</td>
<td>2350+1100</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>1350</td>
<td>25</td>
<td>CD</td>
<td>2200</td>
<td>Rear</td>
<td>2200x1400</td>
<td>2250x1400</td>
<td>2550+1200</td>
</tr>
<tr>
<td>P21</td>
<td>21</td>
<td>1600</td>
<td>25</td>
<td>CO</td>
<td>1400</td>
<td>Side</td>
<td>1400x1400</td>
<td>1450x1400</td>
<td>1750+900</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 overhead (mm)</th>
<th>Minimum pit depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>450(Q)/1050</td>
<td>150</td>
<td>3450</td>
<td>1400</td>
</tr>
<tr>
<td></td>
<td>550(Q)/1400</td>
<td>150</td>
<td>3450</td>
<td>1400</td>
</tr>
<tr>
<td></td>
<td>630(Q)/1600</td>
<td>150</td>
<td>3450</td>
<td>1400</td>
</tr>
</tbody>
</table>

### Specifications for Variable Traveling Speed Elevator System (Optional)

- The Variable Traveling Speed Elevator System (VSE) is applicable for elevators with a rated speed of 1.0m/sec.
- The applicable range of the rated capacity may differ depending on the manufacturing factory. Please consult our local agents for details.
- Minimum hoistway dimensions (AH and BH) shown in the table are after waterproofing of the pit and do not include plumb tolerance.
- CO: 2-panel center opening doors, 2S: 2-panel side sliding doors.

#### Hoistway Plan <1-Door 1-Gate>

- The layout (position of traction machine, etc.) differs depending on capacity.

#### Elevation <1-Door 1-Gate>

- The dimensional information shown here in this page is based on the requirements of EN81-1.
- For other components, please consult our local agent.
**Basic Specifications**

**Horizontal Dimensions**

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of doors</th>
<th>Rated speed (m/sec)</th>
<th>Rated capacity (kg)</th>
<th>Car internal dimensions (mm)</th>
<th>Entrance dimensions (mm)</th>
<th>Minimum hoistway dimensions (mm)</th>
<th>Rated speed (m/sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P8</td>
<td>8</td>
<td>1.6</td>
<td>1.75</td>
<td>630</td>
<td>CO: 1100x1400</td>
<td>AHx BH/car</td>
<td>1.0, 1.5, 2.5</td>
</tr>
<tr>
<td>P11</td>
<td>11</td>
<td>1.6</td>
<td>1.75</td>
<td>825</td>
<td>CO: 1350x1400</td>
<td>AHx BH/car</td>
<td>1.0, 1.5, 2.5</td>
</tr>
<tr>
<td>P14</td>
<td>14</td>
<td>1.6</td>
<td>1.75</td>
<td>1050</td>
<td>CO: 1600x1400</td>
<td>AHx BH/car</td>
<td>1.0, 1.5, 2.5</td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1.6</td>
<td>1.75</td>
<td>1275</td>
<td>CO: 1200x2300</td>
<td>AHx BH/car</td>
<td>1.0, 1.5, 2.5</td>
</tr>
<tr>
<td>P21</td>
<td>21</td>
<td>1.6</td>
<td>1.75</td>
<td>1600</td>
<td>CO: 1400x2400</td>
<td>AHx BH/car</td>
<td>1.0, 1.5, 2.5</td>
</tr>
</tbody>
</table>

**Important Information on Elevator Planning**

**Important Information on Elevator Planning**

**Work Not Included in Elevator Contract**

The following items are excluded from Mitsubishi Electric’s elevator installation work. Their details or conditions are to be confirmed to the statement of local laws or Mitsubishi Electric elevator’s requirements, as well as 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 a ladder to the elevator pit.
- The provision of all openings and supporting members as required for equipment installation.
- Separate beams, when the hoistway dimensions markedly exceed the specifications, 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 necessary building materials for grouting of brackets, bolts, etc.
- The provision of the necessary building materials for installation of the floor, ceiling, and walls of the hoistway.
- The provision of openings and supporting members as required for equipment installation.
- The provision of a ladder to the elevator pit.
- 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 Mitsubishi Electric’s elevator controller, when supplied by the building owner or general contractor.

**Note:** Work responsibilities in installation and construction shall be determined according to local laws.

**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 shall be provided against icing and condensation occurring due to a rapid drop in the temperature 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.

**Basic code compliance**

The dimensional information shown here in this page is based on the requirements of EN81-1. For other components, please consult our local agent.
State-of-the-Art Factories…
For the Environment. For Product Quality.

Mitsubishi Electric 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 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 Corporation Inazawa 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.

Mitsubishi Elevator Asia Co., Ltd. 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.

Eco Changes is the Mitsubishi Electric Group’s environmental statement, and expresses the Group’s stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHI-HYODA-AU, TOKYO 100-8910, JAPAN

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