PASSENGER ELEVATORS

2018

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.
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.
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 of 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.

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.
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.
**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**

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor</th>
<th>Drive</th>
<th>Control</th>
<th>Power Consumption / CO2 Emissions</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>Induction motor</td>
<td>AC2 control</td>
<td>Relay</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td>1980</td>
<td>ACVV* control</td>
<td></td>
<td></td>
<td>20%</td>
<td>90%</td>
</tr>
<tr>
<td>1990</td>
<td>ACVV* control</td>
<td></td>
<td></td>
<td>25%</td>
<td>80%</td>
</tr>
<tr>
<td>2000</td>
<td>VVVF* control</td>
<td></td>
<td></td>
<td>37%</td>
<td>63%</td>
</tr>
<tr>
<td>2010</td>
<td>Permanent magnet motor</td>
<td></td>
<td></td>
<td>30%</td>
<td>70%</td>
</tr>
</tbody>
</table>

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.

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**Traction Machine with PM Motor**

The joint-lapped core built in the PM motor of the traction machine features flexible joints. The iron core can be like a hinge, which allows coils to be wound around the core densely, resulting in improved motor efficiency and compactness.

High-density magnetic field is produced, enabling lower use of energy and resources and reduced CO2 emissions. In addition, we have adopted a 2:1 (single-wrap) roping system, which lessens load on the traction machine, and allows further reductions in traction machine size.

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**LED Lighting (Optional)**

Energy-efficient LEDs consume less power than conventional lamps. Used for ceiling lights and hall lanterns, LEDs boost the overall energy performance of the building. Furthermore, the long service life eliminates the need for frequent lamp replacement.

<table>
<thead>
<tr>
<th>LED</th>
<th>Avg. Life (hr)</th>
<th>Power Consumption (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incandescent lamp</td>
<td>2000</td>
<td>32.5</td>
</tr>
<tr>
<td>LED</td>
<td>Approximately 12.5 times longer</td>
<td>Approximately 75% reduction</td>
</tr>
</tbody>
</table>

**Energy-saving Features**

Mitsubishi Electric offers features that help to reduce the energy consumption of elevators.

**Energy-saving Operation – Number of Cars: ESO-N (Optional for ΣAI-22)**

The number of service cars is automatically reduced to some extent without affecting passenger waiting time.

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

Based on each elevator’s potential energy consumption, the system selects the elevator that best balances operational efficiency and energy consumption. Please refer to page 10 for details.

**Car Light/Fan Shut Off – Automatic: CFO-A/CLO-A**

The car lighting/ventilation fan is automatically turned off if there are no calls for a specified period.
Smooth Mobility through Efficient Group Control

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.

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

ΣAI-22 and ΣAI-2200C control multiple elevators optimally according to the building size.

Improving of traffic efficiency can alleviate the passengers’ irritation. Applying the new allocation algorithm, the average waiting time and long waits are reduced.

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.

Maximizing Operational Efficiency and Minimizing Energy Consumption

Energy-saving Operation — Allocation Control: ESO-W (ΣAI-2200C)

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.

Car allocation that maximizes operational efficiency does not necessarily translate to energy efficiency. A car uses energy efficiently when it travels down with a heavy load, or up with a light load. Accordingly, if multiple cars have the same traveling distance, this system chooses the car that requires the least energy.

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.
Dynamic Rule-set Optimizer (ΣAI-2200C)
Based on real traffic data, passenger traffic is predicted every few minutes. According to the prediction, real-time simulation selects the best rule-set (multiple rules have been set as car allocation patterns), which optimizes transport efficiency.

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.

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

*Hall lanterns are available as optional.
Emergency Situations

Enhance safety by adding emergency operation features which quickly respond to a power failure, fire or earthquake.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **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. |
| **Fire** | Fire Emergency Return: FER (Optional)  
When a fire alarm is triggered, all cars immediately return to a specified floor and open the doors for passengers to evacuate. After all cars have arrived, predetermined cars will resume normal operation. |
| **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. |

For Safe Boarding

Our reliable safety device ensures that the doors are clear to open and close. Depending on the type of sensor, the detection area differs.

For Comfortable Use

User-oriented Design
Great care is taken in the design and manufacture of each and every elevator part to ensure a comfortable, user-friendly ride.

Clear Font
The font for indicators and buttons is highly visible. On tactile buttons in particular, the font makes letters/numbers easy for visually-impaired passengers to distinguish.

1 2 3 4 5 6 7 8 9 0

LCD Position Indicators: Car/hall (Optional)
Clear, bright LCD indicators deliver information clearly and effectively.

Colors
Select the best color from our five popular and eye-catching background colors.

Stylish Blue
Modern White
Elegance Brown
Urban black
Fine Green

*Please consult our local agents for the production terms, etc.
**Car Design Example**

- **Walls**: SUS-HL
- **Transom panel**: SUS-HL
- **Doors**: SUS-HL
- **Front return panels**: SUS-HL
- **Kickplate**: Aluminum
- **Flooring**: PRB03: Gray
- **Car operating panel**: CBV1-C760

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**Hall Design Example**

- **Jamb**: SUS-HL
- **Doors**: SUS-HL
- **Hall position indicator and button**: PVI-A1010N

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**Hall position indicators and buttons**

- **With plastic case**

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**Car operating panel**

- **For front return panel**

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**Hall Design Example**

- **Jamb**: SUS-HL
- **Doors**: SUS-HL
- **Hall position indicator and button**: PVI-A1010N

---

**Hall position indicators and buttons**

- **With plastic case**

---

**Features (1/2)**

### Building Management System-GateWay
- **BMS-GW**: Each elevator's name and operating status can be monitored and controlled using an up-to-date management system which manages various facilities in the building as the interface for the inference system.

### Earthquake Emergency Return
- **EBR-P**: Emergency Return of primary and/or secondary evacuation zones, sending all cars to the nearest floor, and opening them with the doors open to facilitate the safe evacuation of passengers.

### Emergency Car Lighting
- **ECL**: 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)

### Fire Emergency Return
- **FER**: Upon activation of a key switch or by pulling the alarm, all cars are canceled, and all cars immediately return to the specified evacuation floor and the doors open to facilitate the safe evacuation of passengers.

### Firefighter's Emergency Operation
- **FE**: During a fire, when the fire operation switch is activated, the car calls of a specified car and all hall cars are canceled and the car immediately returns to the pre-determined floor. The car then responds to car calls which facilitate firefighting and rescue operation.

### Mitsubishi Elevators' & Mitsubishi Escalators' Monitoring and Control System
- **WC**: Elevator status and operations can be monitored and controlled using an advanced Web-based technology which provides an interface through personal computers. Special management features such as preparation of traffic statistics and analysis are also available.

### Operation by Emergency Power Source—Automatic/Mandatory
- **EPS**: Upon power failure, a car equipped with this function automatically moves and stops at the nearest floor using a rechargeable battery, and the doors open to facilitate the safe evacuation of passengers. Maximum allowable floor-to-floor distance is 11 meters.

### Supervisory Panel
- **WP**: A car's elevator name and operating status are monitored and controlled through a panel mounted to a building's supervisory security, etc.

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### DOOR OPERATION FEATURES

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door Open System Time Adjustment</td>
<td>DOT</td>
<td>The time doors are open will automatically be adjusted depending on whether the stop was called from the hall or the car, to allow smooth boarding of passengers or loading of baggage.</td>
</tr>
<tr>
<td>Automatic Door Speed Control</td>
<td>DISC</td>
<td>Door load on each floor, which depend on the type of hall doors, is monitored and adjusted to adjust the door speed, thereby making the door speed constant throughout all floors.</td>
</tr>
<tr>
<td>Door Load Detector</td>
<td>DLD</td>
<td>When excessive door load has been detected while opening or closing, the doors remain stationary.</td>
</tr>
<tr>
<td>Door Nudging Feature—With Buzzer</td>
<td>NGD</td>
<td>A buzzer sounds and the doors close slowly where they have remained open for a longer than the preset period. With the AAN-G or AAN-6 feature, a beep and door guidance sound instead of the buzzer.</td>
</tr>
<tr>
<td>Door Sensor Self-diagnosis</td>
<td>DDSA</td>
<td>Failure of non-contact door sensors is checked automatically, and if a problem is diagnosed, the door's closing is delayed and the closing speed is reduced to maintain elevator service and ensure passenger safety.</td>
</tr>
<tr>
<td>Electronic Doorman</td>
<td>EDOM</td>
<td>Door open time is minimized using the SR or Multi-door Doorman feature that detects passengers boarding or exiting.</td>
</tr>
<tr>
<td>Extended Door-open Button</td>
<td>DKO-TB</td>
<td>When the button inside a car is pressed, the doors will remain open longer to allow loading and unloading of baggage, etc.</td>
</tr>
<tr>
<td>Hall Motion Sensor</td>
<td>HMS</td>
<td>Infrared light is used to scan a 3D area near the open doors to detect passengers or objects.</td>
</tr>
<tr>
<td>Multi-door Door Sensor</td>
<td>MDSS</td>
<td>Multiple infrared light beams cover the full width of the doors to detect passengers or objects as the doors close. (Cannot be combined with the SR or MDSS feature.)</td>
</tr>
<tr>
<td>Multi-door Door Sensor—Signaled Type</td>
<td>MBSS</td>
<td>Multiple infrared light beams cover the full width of the doors to detect passengers or objects as the doors close. Additionally, LED lights on the door edge will indicate the door opening/closing and the presence of an obstacle between the doors. (Cannot be combined with any of the following features: SDE, SR or Multi-door Door Sensor.)</td>
</tr>
<tr>
<td>Reopen with Hall Button</td>
<td>ROHB</td>
<td>Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car.</td>
</tr>
<tr>
<td>Repeated Door-close</td>
<td>ROC</td>
<td>Should an obstacle prevent the doors from closing, the doors will repeatedly open and close until the obstacle is cleared from the doorway.</td>
</tr>
<tr>
<td>Safety Door Edge</td>
<td>SDE</td>
<td>The sensitive door edge detects passengers or objects during door closing. It cannot be combined with the MDSS feature.</td>
</tr>
<tr>
<td>Safety Ray</td>
<td>SR</td>
<td>Beams: One or two infrared light beams cover the full width of the doors as they close to detect passengers or objects. (Cannot be combined with the Multi-door Door Sensor or MDSS feature.)</td>
</tr>
</tbody>
</table>

Notes:
- 1C-2BC: (1-car selector) — Standard
- 2C-2BC: (2-car group control system) — Optional
- 3A-2 (1- to 4-car group control system) — Optional
- 3A-2200C (3- to 8-car group control system) — Optional
- **-** Standard
- **-** Optional
- **-** Not applicable to 1C-2BC
- **-** Not applicable
- **-**

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Features (2/2)

**GROUP CONTROL FEATURES**

**Continuity of Service**
- If there are no calls for a specified period, the car lighting will automatically turn off to conserve energy.

**Car Fan Shut Off — Automatically**
- The car fan will automatically shut off if the car is not in use for a specified period.

**Car Light Shut Off — Automatically**
- If there are no calls for a specified period, the car lighting will automatically turn off to conserve energy.

**Switch**
- A buzzer sounds to alert the passengers that the car is overloaded. The doors remain open until the car is unloaded.

**Overload Holding Stop**
- If a car has stopped between floors due to some equipment malfunction, the controller pauses the car in the last position to prevent it from moving until the problem is resolved.

**SIGNAL AND DISPLAY FEATURES**

**Main Floor Parking Operation**
- A system which allows communication between passengers inside a car and the building management system, providing real-time information and assistance.

**Lunchtime Service**
- During the first half of lunchtime, calls for restaurant floors are served with higher priority, and service to specific floors is disabled.

**Service Light-load Car Priority**
- A system which prioritizes service to lighter load cars during peak hours to improve efficiency.

**Forced Floor Stop**
- A function to give priority allocation to the car closest to the floor where a hall call button has been pressed, or to reverse the closing doors of the car closest to the pressed hall call button.

**Intense Up Peak**
- Service to specific floors is not allowed.

**Light-load Car Priority Service**
- A system which prioritizes service to lighter load cars during peak hours to improve efficiency.

**Notes:**
- #1: When the DOAS is applied, ACS is Optional.
- #2: When the DOAS is applied, AECC is Optional.
- #3: When the DOAS is applied, ACS is Optional.
- #4: When the DOAS is applied, AECC is Optional.

**Feature**
- Description
- Abbreviation
- Notes
- 3C to 28C
- 28C to 48C
- 48C to 22BC
- Optional
- Not applicable to 1C-2BC
- Not applicable to 1C-2BC
- Standard

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**Operational and Service Features**

**Attendant Service**
- Attendant service where an operator can be used for controlling the elevator and answering passenger inquiries.

**Automatic Bypass**
- A fully loaded car bypass hall calls in order to maintain maximum operational efficiency.

**Automatic Hall Call Registration**
- If the car cannot carry all of the passengers because it is full, another car will automatically respond to the remaining passengers.

**Backup Operation for Registration Service**
- If the number of registered call is less than the car load, it will automatically move to the next or nearest floor where the doors open.

**Car Fan Shut Off — Automatically**
- If there are no calls for a specified period, the car fan will automatically shut off to conserve energy.

**Car Light Shut Off — Automatically**
- If there are no calls for a specified period, the car lighting will automatically turn off to conserve energy.

**Controllability of Service**
- This feature is effective for buildings with elevator lobby floors. The floor designated as “main floor” in a group control operation can be changed as necessary using a manual switch on the supervisory panel, etc.

**Car Position»Service**
- A system which allows communication between passengers inside a car and the building management system, providing real-time information and assistance.

**Load Balancing Operation**
- A system which distributes calls among available cars in order to maintain a balanced load.

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- A system which distributes calls among available cars in order to maintain a balanced load.

**Max Fan Changeover Operation**
- This feature is effective for buildings with elevator lobby floors. The floor designated as “main floor” in a group control operation can be changed as necessary using a manual switch on the supervisory panel, etc.

**Max Fan Parking**
- The feature is effective for buildings with elevator lobby floors. The floor designated as “main floor” in a group control operation can be changed as necessary using a manual switch on the supervisory panel, etc.

**VIP Operation**
- A function to provide special services for VIP passengers. 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.

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- 48C to 22BC

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Basic Specifications

Horizontal Dimensions

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated capacity (kg)</th>
<th>Rated speed (m/sec)</th>
<th>Door type</th>
<th>Car internal dimensions (mm)</th>
<th>Counterweight position</th>
<th>Minimum hoistway dimensions (AH×BH/car)</th>
<th>Minimum machine room dimensions (AM×BM/car)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P6</td>
<td>6</td>
<td>450</td>
<td>1.0</td>
<td>CO</td>
<td>1400×850</td>
<td>Rear</td>
<td>1750×1950</td>
<td>2880×1980</td>
</tr>
<tr>
<td>P8</td>
<td>8</td>
<td>500</td>
<td>1.5</td>
<td>CO</td>
<td>1400×1030</td>
<td>Rear</td>
<td>1850×2050</td>
<td>2880×2200</td>
</tr>
<tr>
<td>P9</td>
<td>9</td>
<td>600</td>
<td>1.75</td>
<td>CO</td>
<td>1400×1100</td>
<td>Rear</td>
<td>1850×2200</td>
<td>2500×2250</td>
</tr>
<tr>
<td>P10</td>
<td>10</td>
<td>600</td>
<td>2.0</td>
<td>CO</td>
<td>1400×1250</td>
<td>Rear</td>
<td>1850×2200</td>
<td>2200×2350</td>
</tr>
<tr>
<td>P11</td>
<td>11</td>
<td>750</td>
<td>2.5</td>
<td>CO</td>
<td>1400×1350</td>
<td>Rear</td>
<td>1850×2200</td>
<td>2200×2350</td>
</tr>
<tr>
<td>P13</td>
<td>15</td>
<td>900</td>
<td>2.5</td>
<td>CO</td>
<td>1600×1150</td>
<td>Rear</td>
<td>1850×2700</td>
<td>2600×2300</td>
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<tr>
<td>P15</td>
<td>15</td>
<td>1000</td>
<td></td>
<td>CO</td>
<td>1600×1300</td>
<td>Rear</td>
<td>1850×2700</td>
<td>2600×2300</td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1150</td>
<td></td>
<td>CO</td>
<td>1600×1350</td>
<td>Rear</td>
<td>1850×2700</td>
<td>2600×2300</td>
</tr>
<tr>
<td>P20</td>
<td>20</td>
<td>1350</td>
<td></td>
<td>CO</td>
<td>2000×1350</td>
<td>Rear</td>
<td>1850×2700</td>
<td>2600×2300</td>
</tr>
<tr>
<td>P24</td>
<td>24</td>
<td>1600</td>
<td></td>
<td>CO</td>
<td>2100×1550</td>
<td>Rear</td>
<td>1850×2700</td>
<td>2600×2300</td>
</tr>
</tbody>
</table>

Note: Layouts (position of control panel, etc.) differ depending on capacity.

Vertical Dimensions

<table>
<thead>
<tr>
<th>Rated speed (m/sec)</th>
<th>Rated capacity (kg)</th>
<th>Maximum travel (m)</th>
<th>Maximum number of stops</th>
<th>Minimum overhead height (mm)</th>
<th>Minimum machine room door height width (mm)</th>
<th>Minimum floor to floor height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>60</td>
<td>30</td>
<td>10</td>
<td>TR≤80</td>
<td>4400</td>
<td>1600</td>
</tr>
<tr>
<td>1.5</td>
<td>90</td>
<td>30</td>
<td>10</td>
<td>TR≤80</td>
<td>4400</td>
<td>1600</td>
</tr>
<tr>
<td>2.0</td>
<td>120</td>
<td>36</td>
<td>15</td>
<td>TR=90, TR≤120</td>
<td>4720</td>
<td>1550</td>
</tr>
<tr>
<td>2.5</td>
<td>120</td>
<td>36</td>
<td>15</td>
<td>TR=120, TR≤150</td>
<td>4950</td>
<td>1900</td>
</tr>
</tbody>
</table>

Note: * Maximum travel is 90m when the counterweight is installed in a side drop position.
* Some specifications require more than 2500mm as a minimum floor height. Please consult our local agents if the floor height is less than entrance height HH+700mm.

Elevation

Basic code compliance
The dimensional information shown here in this page is based on Mitsubishi Electric standard car size. For safety features, please consult our local agent.
Basic Specifications

**Horizontal Dimensions**

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated capacity (kg)</th>
<th>Rated speed (m/sec)</th>
<th>Door type</th>
<th>Entrance width (mm)</th>
<th>Car internal dimensions (mm)</th>
<th>Counter-weight position</th>
<th>Minimum hoistway dimensions (mm)</th>
<th>Minimum machine room dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P11</td>
<td>11</td>
<td>825</td>
<td>1.0</td>
<td>CO</td>
<td>1490×1150</td>
<td>Rear: 1900×1930</td>
<td>900</td>
<td>1970×1940</td>
<td></td>
</tr>
<tr>
<td>P14</td>
<td>14</td>
<td>1050</td>
<td>1.6</td>
<td>CO</td>
<td>1600×1400</td>
<td>Rear: 2000×1940</td>
<td>1100×1200</td>
<td>2300×1940</td>
<td></td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1225</td>
<td>2.0</td>
<td>CO</td>
<td>1800×1400</td>
<td>Rear: 2200×1940</td>
<td>1300×1200</td>
<td>2600×1940</td>
<td></td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>1350</td>
<td>2.5</td>
<td>CO</td>
<td>1800×1500</td>
<td>Rear: 2200×1940</td>
<td>1400×1200</td>
<td>2700×1940</td>
<td></td>
</tr>
</tbody>
</table>

*The minimum hoistway dimensions (AH and BH) shown in the table above is a space for a car when two or more cars are located in the same hoistway.*

Note:
- 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.
- Please consult our local agents for other specifications.

**Vertical Dimensions**

<table>
<thead>
<tr>
<th>Rated speed (m/sec)</th>
<th>Rated capacity (kg)</th>
<th>Maximum travel (m)</th>
<th>Maximum number of stops</th>
<th>Minimum overhead (mm)</th>
<th>Minimum pit depth (mm)</th>
<th>Minimum machine room clear height (mm)</th>
<th>Minimum floor to floor height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.75</td>
<td>825</td>
<td>20</td>
<td>10</td>
<td>4400</td>
<td>1360</td>
<td>1330</td>
<td>2200 (1)</td>
</tr>
<tr>
<td>2.5</td>
<td>1050</td>
<td>20</td>
<td>10</td>
<td>4720</td>
<td>1360</td>
<td>1360</td>
<td>2500 (2)</td>
</tr>
</tbody>
</table>

*Some specifications require more than 2500mm as a minimum floor height. Please consult our local agents if the floor height is less than entrance height HH + 700mm.*

**Elevation**

Note: Hoistway section for counterweight side drop is slightly different from this figure.

**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.
Basic Specifications

**Horizontal Dimensions**

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated capacity (kg)</th>
<th>Rated speed (m/sec)</th>
<th>Door type</th>
<th>Entrance width (mm)</th>
<th>Car internal dimensions (mm)</th>
<th>Counter-weight position</th>
<th>Minimum hoistway dimensions (AH×BH/car)</th>
<th>Minimum machine room dimensions (AM×BM/car)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P10</td>
<td>10</td>
<td>750</td>
<td>1.75</td>
<td>CO</td>
<td>1400×1300</td>
<td>1050×1500</td>
<td>RAD</td>
<td>1950×1260</td>
<td>2100×1700</td>
</tr>
<tr>
<td>P11</td>
<td>11</td>
<td>825</td>
<td>1.75</td>
<td>CO</td>
<td>1400×1350</td>
<td>1050×1500</td>
<td>RAD</td>
<td>2200×1520</td>
<td>2300×1960</td>
</tr>
<tr>
<td>P12</td>
<td>12</td>
<td>900</td>
<td>2.0</td>
<td>2S</td>
<td>1800×1680</td>
<td>1200×2300</td>
<td>RAD</td>
<td>2100×1500</td>
<td>2200×1940</td>
</tr>
<tr>
<td>P14</td>
<td>14</td>
<td>1050</td>
<td>1.6</td>
<td>2S</td>
<td>2000×1350</td>
<td>1000×1800</td>
<td>RAD</td>
<td>2200×1740</td>
<td>2300×2180</td>
</tr>
<tr>
<td>P16</td>
<td>16</td>
<td>1200</td>
<td>1.0</td>
<td>1.0</td>
<td>2000×1200</td>
<td>800×1100</td>
<td>RAD</td>
<td>2200×1300</td>
<td>2300×1740</td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1275</td>
<td>1.0</td>
<td>2.5</td>
<td>2000×1200</td>
<td>800×1100</td>
<td>RAD</td>
<td>2200×1300</td>
<td>2300×1740</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>1350</td>
<td>1.0</td>
<td>2.5</td>
<td>2000×1200</td>
<td>800×1100</td>
<td>RAD</td>
<td>2200×1300</td>
<td>2300×1740</td>
</tr>
</tbody>
</table>

**Vertical Dimensions**

<table>
<thead>
<tr>
<th>Model</th>
<th>Rated capacity (kg)</th>
<th>Maximum travel (m)</th>
<th>Maximum number of stops</th>
<th>Minimum overhead height (mm)</th>
<th>Minimum pit depth (mm)</th>
<th>Minimum machine room clear height (mm)</th>
<th>Minimum floor to floor height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB200</td>
<td>120</td>
<td>90</td>
<td>36</td>
<td>4950</td>
<td>1900</td>
<td>1430</td>
<td>1970</td>
</tr>
<tr>
<td>TB120</td>
<td>120</td>
<td>90</td>
<td>36</td>
<td>4950</td>
<td>1900</td>
<td>1430</td>
<td>1970</td>
</tr>
<tr>
<td>TB60</td>
<td>150</td>
<td>90</td>
<td>36</td>
<td>4950</td>
<td>1900</td>
<td>1430</td>
<td>1970</td>
</tr>
<tr>
<td>TB120</td>
<td>120</td>
<td>90</td>
<td>36</td>
<td>4950</td>
<td>1900</td>
<td>1430</td>
<td>1970</td>
</tr>
<tr>
<td>TB60</td>
<td>150</td>
<td>90</td>
<td>36</td>
<td>4950</td>
<td>1900</td>
<td>1430</td>
<td>1970</td>
</tr>
</tbody>
</table>

**Elevation**

*Note: Hoistway section for counterweight side drop is slightly different from this figure.*

**Machine Room Plan Example**

*Basic code compliance*

The dimensional information shown here in this page is based on the requirements of GB7588.

For other components, please consult our local agent.
### 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 conformed to the statement of local laws or Mitsubishi Electric elevator's requirements, are therefore the responsibility of the building owner or general contractor.

- Construction of the elevator machine room with proper beams and slabs, equipped with a lock, complete with illumination, ventilation and waterproofing.
- Access to the elevator machine room sufficient to allow passage of the control panel and traction machine.
- Architectural finishing of the machine room floor, and 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 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, and their electrical switch boxes in the machine room, and laying of the wiring from the electrical room.
- The provision of outlets and laying of the wiring in the machine room and 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 of 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 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 machine room and 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 machine room and elevator hoistway.
  c. The machine room and 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.
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 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, CHIYODA-KU, TOKYO 100-8310, JAPAN

Visit our website at:
http://www.MitsubishiElectric.com/elevator/