MITSUBISHI ELECTRIC
Changes for the Better

PASSENGER ELEVATORS
(HIGH-SPEED CUSTOM-TYPE)

NexWay
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.
Premium Elevators Custom-designed to Match Your Needs

Mitsubishi Electric high-speed elevators are designed to keep pace with the vertical growth of cities as buildings soar to ever greater heights. Our premium elevators guarantee high levels of passenger safety and comfort, and can be customized for diverse applications including office buildings, hotels and shopping centers. We can tailor specifications to meet your exact needs and add a distinctive touch that sets your building apart from the rest.
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.

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.

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.

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**Application**

- NexWay
The amount of lateral vibration generated by high-speed elevator cars is tremendous. As a world’s first innovation in the industry, Mitsubishi Electric’s Active Roller Guide technology reduces this vibration by approximately 50%. It works via an accelerometer that detects car vibration during operation, along with actuators that cancel the vibration through a controlled electromagnetic force. Mitsubishi Electric Active Roller Guides ensure a more comfortable ride than elevators employing conventional roller guides.

**Super High-rise Rope Mechanics**

Mitsubishi Electric’s new sfleX-rope® comprising bundles of high-intensity steel wire strands, each covered with plastic, offers higher intensity than conventional rope for safe operation despite the greater weight of longer ropes. Each wire has a higher density and wider cross-sectional area than conventional rope, which helps to reduce rope stretching caused when passengers step into the elevator.

Application of the sfleX-rope® depends on travel, speed, etc. Please consult our local agents for details. The sfleX-rope® is a registered trademark of Mitsubishi Electric Corporation.

**Speed**

Traction Machine with PM Motor

(PM motor: permanent magnet motor)

The joint-lapped core built into the PM motor of the traction machine features flexible joints. The iron core acts like a hinge, which allows coils to be wound around the core more densely, resulting in improved motor efficiency and compactness. A high-density magnetic field is produced, enabling lower use of energy and resources and reduced CO₂ emissions.

**Comfort**

Active Roller Guide (Optional*)

The amount of lateral vibration generated by high-speed elevator cars is tremendous. As a world’s first innovation in the industry, Mitsubishi Electric’s Active Roller Guide technology reduces this vibration by approximately 50%. It works via an accelerometer that detects car vibration during operation, along with actuators that cancel the vibration through a controlled electromagnetic force. Mitsubishi Electric Active Roller Guides ensure a more comfortable ride than elevators employing conventional roller guides.

Note: *Please consult our local agents for details.

The sfleX-rope® is a registered trademark of Mitsubishi Electric Corporation.
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.

### Advantages of LEDs

<table>
<thead>
<tr>
<th>Ceiling: L210S</th>
<th>LED downlights (yellow-orange)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service life (hr)</strong></td>
<td>Power consumption (W)</td>
</tr>
<tr>
<td>Incandescent lamp</td>
<td>25,000</td>
</tr>
<tr>
<td>LED</td>
<td>2,000</td>
</tr>
</tbody>
</table>

*Approximately 12.5 times longer*  *Approximately 75% reduction*

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**Maximizing Operational Efficiency and Minimizing Energy Consumption**

**Energy-saving Operation — Allocation Control: ESO-W (ZAI-Z200C 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.

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**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**

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**Safety**

**Emergency Situations**

Enhance safety by adding emergency operation features which quickly respond to a power failure, fire or earthquake. (Please refer to page 37 for details.)

**Emergency Operations**

**Power failure**

Mitsubishi Emergency Landing Device: MELD (Optional)

Upon power failure, the 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 cars use the building’s emergency power supply to move to a specified floor and open the doors for passengers to evacuate. After all cars have arrived, the predetermined cars will resume normal operation.

**Fire**

Fire Emergency Return: FER (Optional)

When a key switch or the building’s fire sensor is activated, all cars immediately return to a specified floor and open the doors to facilitate the safe evacuation of passengers.

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 facilitates firefighting and rescue operations.

**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.

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

Allocating Passengers to Cars Depending on Destination Floors

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 waiting and traveling time.

(Car destination floor indicator can be installed on the car operating panel as an option to display which floors the car stops at.)

Example of hall arrangement

Efficiency

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

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

<table>
<thead>
<tr>
<th>Group control systems</th>
<th>Suitable building size</th>
<th>Number of cars per group</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΣAI-22 system</td>
<td>Small/medium</td>
<td>3 to 4</td>
</tr>
<tr>
<td>ΣAI-2200C system</td>
<td>Large</td>
<td>3 to 6</td>
</tr>
</tbody>
</table>

Performance

- Average waiting time
- Long-wait rate (60 seconds or longer)

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

Cooperative Optimization Assignment (ΣAI-2200C)

Forecasts a near-future hall call to reduce long waits

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

Advantages of DOAS at Hall

Without DOAS
Passengers wait for cars wondering which car will arrive first. Once a car arrives, regardless of the destination, passengers rush to get into the car.

With DOAS
When passengers enter a destination floor at a hall, the hall operating panel indicates which elevator to take. As passengers proceed to the assigned elevator, the car is on its way and there is no hurry when the car arrives.

Please refer to the ΣAI-2200C brochure for details.
LCD Information Display* (10.4- or 15-inch)
The cutting-edge LCD display delivers elevator information with stereoscopic direction arrows and animated pictures, and entertains the passengers with DVD playback/television (NTSC/PAL).

Example display of partial-screen animated picture

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

Language
Standard elevator information, and date and time are available in English (US, UK or Singapore), Chinese, French, Japanese, Portuguese or Spanish.

IT Solutions
Elevator Monitoring and Control System: MelEye (Optional)
MelEye closely observes the operational status of elevators that handle continually changing passenger traffic. This allows building managers to rapidly respond to changing traffic patterns, thus optimizing the performance of elevators and maximizing the added value of the whole building. The application of the latest network technology has also greatly increased the number of controllable elevators, which minimizes the cost spent on facilities such as supervisory rooms and monitors.

MelEye is our solution to futuristic building traffic monitoring systems.

MelEye’s user-friendly screen shows the detailed operational status of the elevators in real time.

The past fault logs of the elevators and escalators are recorded in addition to the operation logs of the computer.

Remote control
A computer allows remote control of special and emergency operations.

Scheduling of special operations

Note: * Please consult our local agents for the production terms, etc.
Ceiling Variations & Car Finishes

Customized-1  Distinctive design using vaulted lighting and marble floor finish

- Ceiling (Customized-1): Painted steel sheet [Y033: White]
- Lighting: Central indirect lighting and downlights
- Walls: Colored stainless-steel with etched pattern (champagne gold)
- Transom panel: Stainless-steel, mirror-finish
- Doors: Colored stainless-steel with etched pattern (champagne gold)
- Front return panels: Stainless-steel, mirror-finish
- Kickplate: Stainless-steel, hairline-finish
- Flooring: Marble (supplied by customer)
- Car operating panel: CBV3-N732
- Handrails: YH-59M
- Mirrors: YZ-55SN

Customized-2  Indirect lighting and downlights create a stylish atmosphere

- Ceiling (Customized-2): Painted steel sheet [Y033: White]
- Lighting: Central indirect lighting and downlights
- Walls: Painted steel sheet
- Transom panel: Painted steel sheet
- Doors: Stainless-steel, hairline-finish
- Front return panels: Stainless-steel, hairline-finish
- Kickplate: Stainless-steel, hairline-finish
- Flooring: Marble (supplied by customer)
- Car operating panel: CBV1-N712
- Handrails: YH-595
- Mirrors: None
### L210

**Sophisticated atmosphere created by downlights and shadows**

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#### Car Design Example

- **Ceiling**: L210 (in above image) – Painted steel sheet [Y055: Dark gray] or L210S (optional) – Stainless-steel, hairline-finish
- **Lighting**: Downlights (LEDs)
- **Walls**: Colored stainless-steel, hairline-finish (Bronze)
- **Transom panel**: Colored stainless-steel, hairline-finish (Bronze)
- **Doors**: Colored stainless-steel, hairline-finish (Bronze)
- **Front return panels**: Stainless-steel, hairline-finish
- **Kickplate**: Stainless-steel, hairline-finish
- **Flooring**: PR812: Dim-gray
- **Car operating panel**: CBV1-N732
- **Handrail**: YH-59S (three sides)
- **Mirror**: None

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#### Design Change variations

- **Ceiling (L210S)**: Panel – Stainless-steel, hairline-finish
  - **Walls**: Stainless-steel, hairline-finish
  - **Flooring**: PR812: Dim-gray
  - **Handrail**: YH-59S (three sides)
  - **Mirror**: None

- **Ceiling (L210S)**: Panel – Painted steel sheet [Y014: Red-violet]
  - **Walls**: Painted steel sheet [Y014: Red-violet]
  - **Flooring**: PR812: Dim-gray
  - **Handrail**: YH-59S (both sides)
  - **Mirror**: None

- **Ceiling (L210)**: Panel – Painted steel sheet [Y033: White]
  - **Walls**: Painted steel sheet [Y033: White]
  - **Flooring**: PR803: Gray
  - **Handrail**: YH-59M (three sides)
  - **Mirror**: YZ-55SN (Full height)

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- **Actual colors may differ slightly from those shown.**
Ceiling Variations & Car Finishes

L400  Softly lit illuminated ceiling with a sparkling slitted frame

Car Design Example

Ceiling (L400)  Panel: Painted steel sheet [Y055: Dark gray]
Lighting: Indirect lighting (LEDs)
Walls _______ Stainless-steel, hairline-finish with etched pattern (EPA-4)
Transom panel _______ Stainless-steel, hairline-finish with etched pattern (EPA-4)
Doors _______ Stainless-steel, hairline-finish with etched pattern (EPA-4)
Front return panels _______ Stainless-steel, hairline-finish
Kickplate _______ Stainless-steel, hairline-finish
Flooring _______ PR810: Ocher
Car operating panel _______ CBV3-N712
Handrail _______ YH-59M (three sides)
Mirror _______ None

Design Change variations

Ceiling (L400), Panel: Painted steel sheet [Y055: Dark gray]
Walls _______ Stainless-steel, hairline-finish with etched pattern (Gold EPA-4)
Flooring _______ PR812: Dim-gray
Handrail _______ YH-59G (both sides)
Mirror _______ YZ-S55N (Full height)

Ceiling (L400), Panel: Painted steel sheet [Y055: Dark gray]
Walls _______ Stainless-steel, mirror-finish
Flooring _______ PR803: Gray
Handrail _______ YH-59M (three sides)
Mirror _______ YZ-S55N (Full height)

Ceiling (L400), Panel: Painted steel sheet [Y055: Dark gray]
Walls _______ Stainless-steel, hairline-finish with etched pattern (EPA-4)
Flooring _______ PR812: Dim-gray
Handrail _______ YH-59M (three sides)
Mirror _______ YZ-S55N (Full height)

Ceiling (L400), Panel: Painted steel sheet [Y055: Light beige]
Walls _______ Stainless-steel, mirror-finish
Flooring _______ PR812: Dim-gray
Handrail _______ YH-59M (three sides)
Mirror _______ YZ-S55N (Full height)

Ceiling (L400), Panel: Painted steel sheet [Y055: Dark gray]
Walls _______ Stainless-steel, hairline-finish with etched pattern (EPA-4)
Flooring _______ PR812: Dim-gray
Handrail _______ YH-59M (three sides)
Mirror _______ YZ-S55N (Full height)

Actual colors may differ slightly from those shown.
Ceiling Variations & Car Finishes

N300 | Terraced design with illusion of increased ceiling height

Car Design Example

Ceiling
Lighting: Central indirect lighting and downlights
Walls
Painted steel sheet [Y016: Light brown]
Transom panel
Painted steel sheet [Y016: Light brown]
Doors
Painted steel sheet [Y016: Light brown]
Front return panels
Stainless-steel, hairline-finish
Kickplate
Stainless-steel, hairline-finish
Flooring
PR803: Gray
Car operating panel
CBV3-N732
Handrail
YH59S (both sides)
Mirror
YZ-55SN (Full height)

Design Change variations

Ceiling (N300): Panel: Stainless-steel, hairline-finish
Walls: Stainless-steel, hairline-finish
Flooring: PR801 Gray
Handrail: YH-59S (three sides)
Mirror: None

Ceiling (N300): Panel: Painted steel sheet [Y033: White]
Walls: Stainless-steel, hairline-finish with etched pattern (EPA-3)
Flooring: PR812: Dim-gray
Handrail: YH59S (both sides)
Mirror: None

Walls: Stainless-steel, hairline-finish
Flooring: PR803: Gray
Handrail: YH-59S (three sides)
Mirror: YZ-55SN (Full height)

Actual colors may differ slightly from those shown.
For side wall

Car Operating Panels

Segment LED indicator
Dot LED indicator
LCD indicator

Notes:
*1: The symbol ■ is replaced with a number representing illumination color (e.g., CBV1, CBV3, etc.). Please refer to page 25 for illumination colors.
*2: Faceplates with stainless-steel, mirror-finish are also available (optional). Please consult our local agents for details.
*3: The types in parentheses ( ) show auxiliary car operating panels (optional). The design is slightly different from the above images. Please consult our local agents for further information such as installation location.
*4: Some letters of the alphabet are not available. Please consult our local agents for details.

Actual colors may differ slightly from those shown.
Mirrors

YZ-52A  
Half-size

YZ-53A  
2-mirror set

YZ-55SN  
Full height

Handrails

YH-59S  
(Stainless-steel, hairline-finish)

YH-59M  
(Stainless-steel, mirror-finish)

YH-59G  
(Stainless-steel, mirror-finish [Gold])

YH-57S  
(Stainless-steel, hairline-finish)

Actual colors may differ slightly from those shown.
Entrance Finishes

Entrance Design Example of E-312
- Jamb: Stainless-steel, hairline-finish
- Transom panel: Colored stainless-steel with etched pattern (black)
- Doors: Colored stainless-steel with etched pattern (black)
- Hall lantern: HLV-A31S
- Hall button: HBV3-C710N

Entrance Design Example of E-302
- Jamb: Stainless-steel, hairline-finish
- Doors: Painted steel sheet (Y033: White)
- Hall lantern: HLV-A16S
- Hall button: HBV1-C710N

Note:
* Please consult our local agents for the production terms, etc.
Hall Signal Fixtures

- **Hall position indicators and buttons**

  - **Segment LED indicator**
    - With plastic case
    - Standard: PIV-A1010N, PIV-A1010B
    - LED: PIV-A1020N, PIV-A1020B
  - **Segment LED indicator**
    - Standard: PIV-C710N, PIV-C720N
    - LED: PIV-C710N, PIV-C720N
  - **LCD indicator**
    - PIV-D417
  - **Dot LED indicator**
    - PIV-D415

- **Hall lanterns**

  - HLV-A31S
  - HLH-A31S
  - HLV-A16S
  - HLH-A16S

- **Hall position indicators**

  - PIH-D415
    - (Dot LED indicator)
  - PIH-D417
    - (Segment LED indicator)
  - PID-D417
    - (Built into transom panel)

- **LCD information displays**

  - PIH-C216 (10.4-inch)
  - PIH-C226 (15-inch)

- **LCD position indicator**

  - PIH-C117 (5.7-inch)

- **Hall position indicators with lantern**

  - PIH-C226 (15-inch)

- **Cross-section of boxless fixtures**

  These hall signal fixtures can be easily mounted on the wall surface without having to cut into the wall to embed the back box.

**Buttons accented with LED halo illumination**

Illuminated characters and halos attract user’s attention. Tactile button (stainless-steel with non-directional hairline-finish) is available in three illumination colors: yellow-orange, white and blue.

**Square buttons (HBV, C710N only)**

The entire buttons (excluding characters) are illuminated yellow-orange (HBV2), white (HBV4) or blue (HBV6).

**Notes:**

1. Segment LED indicators cannot display some letters of alphabet. Please consult our local agents for details.
2. Dot LED indicators are available (optional). Please consult our local agents for details.
3. Please select a button type referring to button line-up on this page, and enter the number in the space shown as ■.
4. Faceplates with stainless-steel, mirror-finish are also available (optional). Please consult our local agents for details.
5. These hall position indicators and buttons, or hall buttons are applicable to EN81-70 compliant elevators. The images shown here are the EN81-70 compliant type.
6. However, the hall position indicators and buttons are not applicable to EN81-70 compliant elevators in multi-car group control.
Special Signal Fixtures for DOAS

10.4-inch Touch Screen
- Surface mounted type

Keypad
- Dot LED display (orange when illuminated)
  - HSVF-C212
  - HSVF-C222
  - HSVF-C232 (With accessibility button)

- LCD display (5.7-inch)
  - HSVF-C264
  - HSVF-C274
  - HSVF-C284 (With accessibility button)

Notes:
*1: Please consult our local agents for the production terms, etc.
*2: Card reader is to be supplied by customer. Please consult our local agents for details.
For details of designs and other options, refer to the ΣAI-2200C brochure.

Card reader mount option:
Card reader mount option is available for all left fixtures.
### Materials and Colors

#### [Car] Walls, doors and transom panel

<table>
<thead>
<tr>
<th>Colored stainless-steel, hairline-finish</th>
<th>Etching patterns (gold or bronze)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>EPA-1, EPA-2, EPA-3</td>
</tr>
<tr>
<td>Bronze</td>
<td>Non-etched surface, Etched surface</td>
</tr>
</tbody>
</table>

#### Ceiling

<table>
<thead>
<tr>
<th>Painted stainless steel sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y033 White</td>
</tr>
<tr>
<td>Y055 Dark gray</td>
</tr>
<tr>
<td>Y073 Light beige</td>
</tr>
</tbody>
</table>

#### Flooring

<table>
<thead>
<tr>
<th>Durable vinyl tiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRB01 Cream beige</td>
</tr>
<tr>
<td>PRB03 Gray</td>
</tr>
<tr>
<td>PRB10 Other</td>
</tr>
<tr>
<td>PRB12 Dim gray</td>
</tr>
</tbody>
</table>

#### Car Finish Application Table

<table>
<thead>
<tr>
<th>Materials/Finishes</th>
<th>Wall</th>
<th>Transom panel</th>
<th>Doors</th>
<th>Front return panels</th>
<th>Kickplate</th>
<th>Flooring</th>
<th>Sill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Painted steel sheet</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Stainless steel, hairline-finish with etched pattern (SUS-HE)</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Colored stainless-steel, hairline-finish (colored SUS-HL)</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Colored stainless-steel, hairline-finish with etched pattern (colored SUS-HE)</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Aluminum</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Glass windows [1300(H) x 300(W)]</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>See-through doors</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Durable vinyl tiles</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Extruded hard aluminum</td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
<td>Standard</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

Note:
* Etching pattern EPA-1~6 only.
* Etching pattern EPA-1~3 only.
* Only available in dark gray.
* Please consult our local agents for the production terms, etc.

### [Hall] Doors, transom panel and jamb

#### Ceiling

<table>
<thead>
<tr>
<th>Painted stainless steel sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y033 White</td>
</tr>
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<tr>
<td>Y073 Light beige</td>
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</table>

#### Flooring

<table>
<thead>
<tr>
<th>Durable vinyl tiles</th>
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</thead>
<tbody>
<tr>
<td>PRB01 Cream beige</td>
</tr>
<tr>
<td>PRB03 Gray</td>
</tr>
<tr>
<td>PRB10 Other</td>
</tr>
<tr>
<td>PRB12 Dim gray</td>
</tr>
</tbody>
</table>

#### Hall Finish Application Table

<table>
<thead>
<tr>
<th>Materials/Finishes</th>
<th>Wall</th>
<th>Transom panel</th>
<th>Doors</th>
<th>Sill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stainless steel, hairline-finish (SUS-HL)</td>
<td>Standard</td>
<td>Optional</td>
<td>Standard</td>
<td>Standard</td>
</tr>
<tr>
<td>Painted steel sheet</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Standard</td>
</tr>
<tr>
<td>Stainless steel, hairline-finish with etched pattern (SUS-HE)</td>
<td>Optional</td>
<td>Optional</td>
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<td>Optional</td>
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<tr>
<td>Colored stainless-steel, hairline-finish (colored SUS-HL)</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
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</tr>
<tr>
<td>Colored stainless-steel, hairline-finish with etched pattern (colored SUS-HE)</td>
<td>Optional</td>
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</tr>
<tr>
<td>Aluminum</td>
<td>Optional</td>
<td>Optional</td>
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<td>Optional</td>
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<tr>
<td>Glass windows [1300(H) x 300(W)]</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>See-through doors</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Extruded hard aluminum</td>
<td>Standard</td>
<td>Optional</td>
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</tbody>
</table>

Note:
* Etching pattern EPA-1~3 only.
* Only available in dark gray.
* Please consult our local agents for the production terms, etc.

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Actual colors may differ slightly from those shown.

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Features (1/2)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Building Management System-Safety</td>
<td>BMS-GW</td>
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<tr>
<td>Earthquake Emergency</td>
<td>EER-P</td>
<td></td>
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<tr>
<td>Fire Emergency Return</td>
<td>FE</td>
<td></td>
</tr>
<tr>
<td>Firefighter Emergency Operation</td>
<td>FE</td>
<td></td>
</tr>
<tr>
<td>Multi-beam Door Sensor</td>
<td>DSAC</td>
<td></td>
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<tr>
<td>Hall Motion Sensor</td>
<td>HMS</td>
<td></td>
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<tr>
<td>Fire Load Detector</td>
<td>FD</td>
<td></td>
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<tr>
<td>Fire Exit</td>
<td>FD</td>
<td></td>
</tr>
<tr>
<td>Attendance Service</td>
<td>AS</td>
<td></td>
</tr>
</tbody>
</table>

![Building Management System-Safety](image1)

- Building Management System-Safety: Monitors the status and operation of various equipment in the building, allowing smooth operation, safety, and energy conservation.
- Earthquake Emergency: Detects earthquakes and activates emergency procedures.
- Fire Emergency Return: Enables fire fighters to return to the fire department quickly.
- Firefighter Emergency Operation: Supports fire fighters with necessary information.
- Multi-beam Door Sensor: Ensures safety by detecting passengers or loading of baggage.
- Hall Motion Sensor: Monitors the movement of people in the building.
- Fire Load Detector: Prevents fire by detecting fire hazards.
- Fire Exit: Ensures smooth evacuation during emergencies.
- Attendance Service: Manages attendance records of employees.

![Earthquake Emergency](image2)

- Earthquake Emergency: Equalizes the status and operation of various equipment in the building via the interface for the elevator system.
- Earthquake Emergency Return: Supports firefighters by returning to the fire department.
- Firefighter Emergency Operation: Supports fire fighters with necessary information.
- Multi-beam Door Sensor: Ensures safety by detecting passengers or loading of baggage.
- Hall Motion Sensor: Monitors the movement of people in the building.
- Fire Load Detector: Prevents fire by detecting fire hazards.
- Fire Exit: Ensures smooth evacuation during emergencies.
- Attendance Service: Manages attendance records of employees.

![Earthquake Emergency](image3)

- Earthquake Emergency: Equalizes the status and operation of various equipment in the building via the interface for the elevator system.
- Earthquake Emergency Return: Supports firefighters by returning to the fire department.
- Firefighter Emergency Operation: Supports fire fighters with necessary information.
- Multi-beam Door Sensor: Ensures safety by detecting passengers or loading of baggage.
- Hall Motion Sensor: Monitors the movement of people in the building.
- Fire Load Detector: Prevents fire by detecting fire hazards.
- Fire Exit: Ensures smooth evacuation during emergencies.
- Attendance Service: Manages attendance records of employees.

![Earthquake Emergency](image4)

- Earthquake Emergency: Equalizes the status and operation of various equipment in the building via the interface for the elevator system.
- Earthquake Emergency Return: Supports firefighters by returning to the fire department.
- Firefighter Emergency Operation: Supports fire fighters with necessary information.
- Multi-beam Door Sensor: Ensures safety by detecting passengers or loading of baggage.
- Hall Motion Sensor: Monitors the movement of people in the building.
- Fire Load Detector: Prevents fire by detecting fire hazards.
- Fire Exit: Ensures smooth evacuation during emergencies.
- Attendance Service: Manages attendance records of employees.

![Earthquake Emergency](image5)

- Earthquake Emergency: Equalizes the status and operation of various equipment in the building via the interface for the elevator system.
- Earthquake Emergency Return: Supports firefighters by returning to the fire department.
- Firefighter Emergency Operation: Supports fire fighters with necessary information.
- Multi-beam Door Sensor: Ensures safety by detecting passengers or loading of baggage.
- Hall Motion Sensor: Monitors the movement of people in the building.
- Fire Load Detector: Prevents fire by detecting fire hazards.
- Fire Exit: Ensures smooth evacuation during emergencies.
- Attendance Service: Manages attendance records of employees.
GROUP CONTROL FEATURES

- Distinction of Traffic Flow
- VIP Operation
- Up Peak Service
- Strategic Overall Spotting
- Special Floor Priority
- Time Evaluation
- Peak Traffic Control
- Lunchtime Service
- Intense Up Peak
- Logic: Speed Control
- Energy-saving Operation
- — Power Reduction
- Energy-saving Operation
- Optimizer

VIP-S
SCPS
MFP
DPS
TFS
FFS
IUP
LTS

Traffic flows in a building are constantly monitored using neural network technology, and the optimum operational pattern for the LTS, UPS feature, etc. is selected or canceled accordingly at the appropriate time.

DPS handles the number of cars to be allocated and the timing of car allocation in order to meet increased demands for downward travel during office leaving time, hotel check-out time, etc. to minimize passenger waiting time.

A system is selected that best balances operational efficiency and energy consumption according to each elevator’s current location and passenger load as well as predicted operation levels throughout the day.

ESO-W
ESO-A
ESO-U

To save energy, some elevators are automatically put into sleep mode if there are no calls for a specified period.

To maximize transport efficiency, an elevator bank is divided into two groups of cars to serve upper and lower floors separately during up peak. In addition, the number of cars to be allocated, the timing of car allocation to the lobby floor, the timing of door closing, etc. are controlled based on predicted traffic data.

All cars in a bank automatically make a stop at a predetermined floor on every trip without being called.

Light-load Car Priority Service

when traffic is light, empty or lightly-loaded cars are given higher priority to respond to hall calls in order to minimize passenger travel time. (Cannot be combined with hall position indicators.)

LTS

During the first half of lunchtime, calls for a restaurant floor are served with higher priority, and during the latter half, the number of cars allocated to the restaurant floor, the allocation timing for each car and the door opening and closing timing are all controlled based on predicted data.

Main Floor Changeover Operation

This feature is effective for buildings with two main lobby/floors. The floor designated as the “main floor” in a group control operation can be changed as necessary using a manual switch.

Main Floor Parking

An available car always parks on the main (lobby) floor with the doors open.

Peak Traffic Control

A floor which temporarily has the heaviest traffic is served with higher priority over other floors.

Psychological Waiting Time Evaluation

Cars are allocated according to the predicted psychological waiting time for each hall call. The rules evaluating psychological waiting time are automatically changed in a timely manner in response to actual service conditions.

Special Car Priority Service

SCPS
Special cars, such as observation elevators and elevators with basement service, are given higher priority to respond to hall calls. (Cannot be combined with hall position indicators)

Special Floor Priority Service

SPS
Special floors, 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 hall position indicators.)

Strategic Overall Spotting

SOH
To reduce passenger waiting time, cars which have finished service are automatically directed to positions where they can respond to predicted hall calls as quickly as possible.

Up Peak Service

UPS
Compete the number of cars to be allocated to the lobby floor, as well as the car allocation timing, in order to meet increased demands for upward travel from the lobby floor during office starting time, hotel check-in time, etc., and minimize passenger waiting time.

VIP Operation

VIP-S
A specified car is withdrawn from group control operation for VIP service operation. When activated, the car responds only to existing call cars, moves to a specified floor and parks there with the doors open. The car then responds only to call cars.
Specifications

<table>
<thead>
<tr>
<th>Capacity and Speed</th>
<th>Number of persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated capacity (kg)</td>
<td>2.0 2.5 3.0 3.5 4.0 5.0 6.0 7.0 8.0 9.0 10.0</td>
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<tr>
<td>750</td>
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<tr>
<td>900</td>
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<td>3000</td>
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</tr>
</tbody>
</table>

Notes:
- The symbol *1 shown in the table indicates that a technical inquiry is required.
- The symbol *2 shown in the table indicates that a technical inquiry is required depending on conditions.

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 conformed to the statement of EN81-20/50: 2014, local laws or Mitsubishi Electric’s elevator 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 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:
  1. The relative humidity shall be below 50% on a monthly average and below 55% on a daily average.
  2. The temperature of the machine room and elevator hoistway shall be below 40°C.
- Prevention against icing and condensation occurring due to a rapid drop in the temperature shall be provided in the machine room and elevator hoistway.
- 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.

Specifications

Door System
- Standard: 3-panel center opening (CO)
- Optional: 2-panel side sliding opening (SO) or 4-panel center opening (CO)

Operation System
- Standard: 1-car selective collective (1C-2BC)
- Optional: 2-car group control system (2C-2BC), 3- or 4-car group control LZA122 system, or 3- to 8-car group central LZA-2000C system
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.

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.