PASSENGER ELEVATOR
(COMPACT MACHINE ROOM SYSTEM)
Series-IP/AP Version2
Series-IP

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.

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

NexWay-S
2nd Edition
Quality in Motion

Principle

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.

Efficiency

Comfort

Ecology

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 place 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

We provide elevators that will satisfy our customers with high levels of comfort, efficiency, ecology and safety.

Note: The applicable range of the rated capacity may differ depending on the manufacturing factory, please consult our local agents for details.
SUSTAINABLE ENERGY USE

Mitsubishi Electric’s leading-edge technologies have made it possible for elevators to conserve energy. Our Regenerative Converter makes the most of power generated by the traction machine. Additionally, thanks to the joint-lapped core in permanent magnet (PM) motor and energy-saving features, the elevators use energy more wisely and efficiently.

**Regenerative Converter (Optional)**

**Efficient use of power**

Elevators usually travel using power from a power supply (powered operation); however, when they travel down with a heavy car load or up with a light car load (regenerative operation), the traction machine functions as a power generator. Although the power generated during traction machine operation is usually dissipated as heat, the Regenerative Converter transmits the power back to the distribution transformer and feeds it into the electrical network in the building along with electricity from the power supply. Compared to the same type of elevator without a regenerative converter, this system provides an energy-saving effect of up to 35%. (Reduction in CO₂ emissions: 1400 kg/year)

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

**Smaller carbon footprint**

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 more 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.

**Energy-saving Features**

**Curbing energy consumption**

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.

**Car Light/Fan Shut Off**

– Automatic (CLO-A/CFO-A)
  The car lighting/ventilation fan is automatically turned off if there are no calls for a specified period.
Variable Traveling Speed Elevator System

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.

The Variable Traveling Speed Elevator System allows elevators to travel faster than their rated speed depending on the number of passengers in the car (rapid mode). When the weight is well-balanced between the car and the counter-weight, the traction machine does not need its full power to make the elevator travel at the rated speed. Thus, utilizing the unused power of the traction machine, the elevator can travel faster. Its efficient transport reduces frustratingly long waiting and traveling time. VSE is a solution for users seeking time-savings in elevator travel.

Waiting Time Reduction

According to Mitsubishi Electric’s simulation, waiting time can be reduced up to approximately 12% when VSE is applied.

Traveling Time Reduction

Traveling time can be reduced by approximately 25% when the elevator travels from the bottom to the top floor directly under rapid mode in VSE.

Note: *The Variable Traveling Speed Elevator System is applicable to elevators with rated speeds of 1.6m/sec, 1.75m/sec and 2.0m/sec and the rated capacity of 750kg to 1350kg.

*The screen design for rapid mode differs slightly depending on car operating panel type.
Through the development of the Compact Gearless Traction Machine and Compact Control Panel, Mitsubishi Electric has successfully reduced the machine room area to that of hoistway*1, where the machine room used to require an area twice as large as that of hoistway. It offers the most advanced elevator features without requiring a large machine room, thus maximizing the use of building space.

Example of Space-saving

<table>
<thead>
<tr>
<th>Conventional Machine Room</th>
<th>Compact Machine Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine room area: 13m²</td>
<td>Compact Control Panel</td>
</tr>
<tr>
<td></td>
<td>Compact PM Gearless</td>
</tr>
<tr>
<td></td>
<td>Traction Machine</td>
</tr>
</tbody>
</table>

Notes:
*1: The area of the machine room may have to be larger than that of the hoistway in case of (a), (b) and/or (c) below.
(a) An optional feature that requires a panel is requested.
(b) The car interior width (AA) is less than 1600mm, and the entrance width (JJ) is less than 900mm for 2-panel center opening (CC) or 1100mm for 2-panel side opening (2S).
(c) The counterweight is installed in a side drop position.

*2: The area of the machine room can be reduced approximately 9m² when the rated capacity is 1150kg and the rated speed is 1.75m/sec. The area may differ depending on the conditions.

Mitsubishi Electric was the first company to replace induction motors with its highly sophisticated PM (permanent magnet) motors for high-speed and super high-speed elevators.

The extremely thin PM motor manufactured using Mitsubishi Electric’s unique stator core technology—Joint-lapped Core in Permanent Magnet (PM) Motor—has dramatically reduced not only the size of traction machines but also energy consumption.

Furthermore, the PM motor suppresses harmonic noise and torque ripple, providing greater riding comfort.

Note: *Please refer to page 4 for details.
Dynamic Rule-set Optimizer

Selects optimum car allocation through rule-set simulations. 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 Prediction System (DOAS-S) (Optional)

Allocates 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 their waiting and traveling time.

Group Control

When a person inconveniently enters the lobby of a multi-story building, the hall operating panel immediately indicates the best car to the floor. Because the destination floor is already registered, the passenger does not need to press a button in the car. Furthermore, the car which minimizes their waiting and traveling time.

### EFFICIENT TRANSPORTATION

Mitsubishi Electric’s breakthrough AI Neural Network® technology in elevator control enhances transport efficiency and reduces passenger waiting time through optimum car allocation, which allows elevators to use energy effectively. Two basic group control systems offer a variety of innovative group control features.

Note: *Neural Network is a mathematical model that emulates the structure of the nerves and cells of the human brain and its information processing mechanism.

#### DOAS-S (Lobby floor(s))

DOAS-S hall operating panels are installed on busy floor(s) such as the lobby while other floors have conventional hall fixtures. This is particularly beneficial for improving the traffic flow leaving from the busy floor. It is especially useful in buildings with heavy up-peak traffic.

#### DOAS-S (All floors)

DOAS-S hall operating panels are installed on all floors. Cars receive destination information from all floors to provide the best service for more complex traffic conditions throughout the day.

The features introduced on these pages are applicable to ΣAI-2200C only. Please refer to page 13 and 14, and the ΣAI-2200C brochure for other features and details.

### Cooperative Optimization Assignment

Forecasts a near-future hall call to reduce long waits. When a hall call is registered, the algorithm assumes 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.

### Performance

- **Average waiting time**
  - morning
  - lunchtime
  - evening

- **Long-wait rate (60 seconds or longer)**
  - morning
  - lunchtime
  - evening

### Suitable building size

- **ΣAI-22 system**: Small to medium
- **ΣAI-2200C system**: Large (especially buildings with dynamic traffic conditions)

### Number of cars in a group

- **ΣAI-22 system**: 3 to 4 cars
- **ΣAI-2200C system**: 3 to 8 cars

### Selects optimum car allocation through rule-set simulations

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.

### Allocates 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 their waiting and traveling time.

### Forecasts a near-future hall call to reduce long waits

When a hall call is registered, the algorithm assumes 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.
Standard Design

Features (1/2)

**EMERGENCY OPERATIONS AND FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>1C-2BC</th>
<th>2C-4BC</th>
<th>2C to 8C</th>
<th>3C to 4C</th>
<th>3C to 8C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metabolite Emergency Landing Device (MELD)</td>
<td>Upon power failure, a car equipped with the 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: 12m)</td>
<td>.confirmation</td>
<td>.confirmation</td>
<td>.confirmation</td>
<td>.confirmation</td>
<td>.confirmation</td>
</tr>
<tr>
<td>Operation by Emergency Power Source — Automatic/Manual (EPS)</td>
<td>Upon power failure, predetermined use the building's emergency power supply to move to a specified floor, where the doors then open to facilitate the safe evacuation of passengers. When all cars hear an alarm, predetermined car returns to normal operation.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fire Emergency Return (FER)</td>
<td>Upon activation of a key switch or by the operation switch, the doors are closed and the car immediately returns to a specified evacuation floor and doors open to facilitate the safe evacuation of passengers.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Firefighters' Emergency Operation (FE)</td>
<td>During an emergency, when the fire operation switch is activated, the car calls shall be cancelled, and the car immediately returns to a predetermined floor. The car then returns only to the car which facilitates fire-fighting and rescue operations.</td>
<td></td>
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</tr>
<tr>
<td>Earthquake Emergency Return (EER/PER-S)</td>
<td>Upon activation of primary and/or secondary wave sensors, all cars stop at the nearest floor, and park there with the doors open to facilitate the safe evacuation of passengers.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Supervisory Panel (WP)</td>
<td>Each elevator's status and operation can be remotely monitored and controlled through a panel installed in a building's supervisory room, etc.</td>
<td></td>
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<tr>
<td>MelEye (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>
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</tbody>
</table>

**DOOR OPERATION FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>1C-2BC</th>
<th>2C-4BC</th>
<th>2C to 8C</th>
<th>3C to 4C</th>
<th>3C to 8C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensor Self-Diagnosis (SSD)</td>
<td>Failure of non-contact door sensors is checked automatically, and if a problem is diagnosed, the door close timing is delayed and the closing speed is reduced to maintain elevator service and ensure passenger safety.</td>
<td></td>
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</tr>
<tr>
<td>Automatic Door Speed Control (DSAC)</td>
<td>Door tradefall speed, which can depend on the type of hall door is monitored to adjust the door speed, thereby making the door speed constant throughout all floors.</td>
<td></td>
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</tr>
<tr>
<td>Automatic Door-open Time Adjustment (ADTA)</td>
<td>Automatic door-open time is adjusted to the specified value. When a car is opened, it will remain open as long as the open time is longer than the specified time period. The door remains open for the specified time period even if an emergency occurs.</td>
<td></td>
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</tr>
<tr>
<td>Reopen with Hall Button (RHB)</td>
<td>Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car.</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Repeated Door-close (RDC)</td>
<td>After an obstacle prevents the doors from closing, the doors will repeatedly open and close until the obstacle is removed.</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Door Nudging Feature — With Master (HFO)</td>
<td>A buzzer sounds and the doors close when they have remained open for longer than the preset period. With MARS or ARW-G, an beep and voice guidance sound instead of the buzzer.</td>
<td></td>
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</tr>
<tr>
<td>Door Load Detector (DDL)</td>
<td>When elevator door load has been detected while opening or closing, the doors immediately reverse.</td>
<td></td>
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</tr>
<tr>
<td>Safety Ray (SR)</td>
<td>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-beam door sensor or MRBS feature.)</td>
<td></td>
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</tr>
<tr>
<td>Extended Door-open Button (XO-B)</td>
<td>When the button inside a car is pressed, the doors will remain open longer to allow loading and unloading of baggage, a stretcher, etc.</td>
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</tr>
<tr>
<td>Safety Door Edge (SDE)</td>
<td>Sensitive door edges detect passengers or objects during door closing. (Cannot be combined with the ROBS feature.)</td>
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</tr>
<tr>
<td>Electronic Doorman (EDM)</td>
<td>Door open time is minimized using safety rays or multi-beam door sensors that detect passengers boarding or exiting.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Multi-beam Door Sensor</td>
<td>Multiple infrared light beams cover a door height of approximately 1800mm to detect passengers or objects as the doors close. (Cannot be combined with the SR or MRBS feature.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-beam Door Sensor — Signal Type (MBSS)</td>
<td>Multiple infrared light beams cover a door height of approximately 1800mm to detect passengers or objects as the doors close. Additionally, LED lights on the door edge indicate the door opening/closing and the presence of an obstruction between the doors. (Cannot be combined with any of the following features: SR, DR, or multi-beam door sensor.)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Hall Motion Sensor (HMS)</td>
<td>Infrared light is used to scan a 3D area near open doors to detect passengers or objects.</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: 1: 1C-2BC (1-car selective collective) — Standard, 2C-4BC (2-car group control) — Optional, 2A-4/2 (4-car group control system) — Optional, 3A/11600C (3 to 8-car group control system) — Optional 2: Standard = Optional 3: Not applicable 4: Please consult our local agents for the production terms, etc.
Features (2/2)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>1C-2BC</th>
<th>2C-2BC</th>
<th>3C-8C</th>
<th>4C-8C</th>
<th>5C-20C</th>
<th>20C-22</th>
</tr>
</thead>
</table>

■ OPERATIONAL AND SERVICE FEATURES

- **Safety Landing (SLF):** If the 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 moves to the nearest floor at a low speed, and the doors will open.
- **Next Landing (NLL):** If the elevator doors do not open fully at a destination floor, the doors close, and the car automatically moves to the nearest or next floor where the doors are opened.
- **Continuity of Service (COS):** A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.
- **Overload Holding Stop (OLH):** A buzzer sounds to alert the passengers that the car is overladen. The doors remain open and the car will not leave the floor until enough passengers exit the car.
- **Automatic Hall Call Service (AIH-C):** If a car cannot carry all waiting passengers because it is full, another car will automatically be requested to the remaining passengers.
- **Car Call Cancelling (CC):** When a car has responded to the final car call in one direction, the system regains calling the other direction as mistakes and clears them from the memory.
- **Car Fan Shut Off (CFSO):** For maintenance or energy-saving measures, a car can be taken out of service temporarily with the car operating panel, allowing smooth boarding of passengers or loading of baggage.
- **Variable Traveling Speed (VT):** The car speed is automatically adjusted during emergency operation.
- **Attendant Service (AS):** A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency.
- **Out-of-service by Hall Key (OSHK):** If one car cannot carry all waiting passengers because it is full, another car will automatically be requested to the remaining passengers.
- **False Call Cancelling (FCC):** If the number of registered car calls does not correspond to the car load, all calls are canceled to conserve energy. Please refer to page 4.
- **Non-service Temporary Remote For Car Service (NTR-S):** When a car is withdrawn from group control operation for independent operation, such as maintenance or repair, and responds only to car calls.
- **Non-service to Specific Floors - Switch (Type NS/SF-S):** If a car is withdrawn from group control operation, a car button can be used to designated floor car calls.
- **Non-service to Specific Floors - Car Button Type (NC-B):** If a car is withdrawn from group control operation, the car button is disabled when the car operating panel is used.
- **Out-of-service by Hall Key Switch (HOS/SOS):** If the elevator doors do not open fully at a destination floor, the doors close, and the car will not leave the floor until enough passengers exit the car.
- **Attendance Service (AS):** When a hall is crowded to the extent that one car cannot accommodate all waiting passengers, a hall key call button is used to indicate which car is required.
- **Variable Traveling Speed (VT):** The car travels faster than the rated speed. Please refer to page 4.
- **Regenerative Converter (RC):** The elevator Tobias, motor power regenregeneration in a traction machine can be used by other electrical systems in the building. Please refer to page 5.

■ SIGNAL AND DISPLAY FEATURES

- **Basic Announcement (AAN-B):** A synthetic voice and/or buzzer alert inside a car that the elevator operation has temporarily stopped due to overload or partially overload. (Store available only English)
- **Voice Guidance System (VGS):** A system which emits audio information regarding elevator operation or status, such as the current floor or service direction.
- **Lunchtime Service (LTS):** This feature is effective for buildings with two main (lobby) floors. The floor designated as the lunch floor is given priority in terms of passenger travel time.
- **Automatic (CFO-A):** A buzzer sounds to indicate that a car is about to arrive.
- **False Call Cancelling (FCC):** If the number of registered car calls does not correspond to the car load, all calls are canceled to conserve energy. Please refer to page 4.
- **Automatic (CFO-A):** A buzzer sounds to indicate that a car is about to arrive.
- **Car Call Cancelling (CC):** When a car has responded to the final car call in one direction, the system regains calling the other direction as mistakes and clears them from the memory.
- **Car Fan Shut Off (CFSO):** For maintenance or energy-saving measures, a car can be taken out of service temporarily with the car operating panel, allowing smooth boarding of passengers or loading of baggage.
- **Variable Traveling Speed (VT):** The car speed is automatically adjusted during emergency operation.
- **Overload Holding Stop (OLH):** A buzzer sounds to alert the passengers that the car is overladen. The doors remain open and the car will not leave the floor until enough passengers exit the car.
- **Automatic Hall Call Service (AIH-C):** If a car cannot carry all waiting passengers because it is full, another car will automatically be requested to the remaining passengers.
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- **Variable Traveling Speed (VT):** The car speed is automatically adjusted during emergency operation.
Basic Specifications

### Vertical Dimensions

<table>
<thead>
<tr>
<th>Rated speed (m/sec)</th>
<th>Maximum travel (m)</th>
<th>Maximum number of stops</th>
<th>Minimum hoistway intake (mm)</th>
<th>Rated capacity (kg)</th>
<th>Minimum pit depth (mm)</th>
<th>Minimum machine room height (mm)</th>
<th>Minimum floor height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>60</td>
<td>1</td>
<td>1500 kg</td>
<td>1420</td>
<td>1410</td>
<td>1390</td>
<td>1400</td>
</tr>
<tr>
<td>1.6</td>
<td>80</td>
<td>1</td>
<td>1350 kg</td>
<td>1430</td>
<td>1410</td>
<td>1390</td>
<td>1400</td>
</tr>
<tr>
<td>1.75</td>
<td>80</td>
<td>1</td>
<td>1275 kg</td>
<td>1420</td>
<td>1410</td>
<td>1390</td>
<td>1400</td>
</tr>
<tr>
<td>2.0</td>
<td>80</td>
<td>1</td>
<td>1200 kg</td>
<td>1410</td>
<td>1400</td>
<td>1380</td>
<td>1400</td>
</tr>
<tr>
<td>2.5</td>
<td>50</td>
<td>2</td>
<td>1050 kg</td>
<td>1480</td>
<td>1410</td>
<td>1390</td>
<td>1400</td>
</tr>
<tr>
<td>3.0 **(1)</td>
<td>100</td>
<td>3</td>
<td>825 kg</td>
<td>1485</td>
<td>1400</td>
<td>1390</td>
<td>1400</td>
</tr>
</tbody>
</table>

Notes:
- **(1)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(2)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(3)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(4)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(5)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(6)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(7)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(8)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- **(9)** When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.

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

<table>
<thead>
<tr>
<th>Rated speed (m/sec)</th>
<th>Traveling speed (m/sec)</th>
<th>Minimum overhead (mm)</th>
<th>Minimum pit depth (mm)</th>
<th>Rated capacity (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>1.0</td>
<td>-1050 kg</td>
<td>-1350 kg</td>
<td>4000</td>
</tr>
<tr>
<td>1.5</td>
<td>1.5</td>
<td>-1050 kg</td>
<td>-1350 kg</td>
<td>4000</td>
</tr>
<tr>
<td>2.0</td>
<td>2.0</td>
<td>-1050 kg</td>
<td>-1350 kg</td>
<td>1640</td>
</tr>
<tr>
<td>2.5</td>
<td>2.5</td>
<td>-1050 kg</td>
<td>-1350 kg</td>
<td>1640</td>
</tr>
</tbody>
</table>

Notes:
- **(1)** When the car size is 1100x1350 and the counterweight is installed in a side drop position. Please consult our local agents for details.
- **(2)** When the car size is 1100x1350 and the counterweight is installed in a side drop position. Please consult our local agents for details.

### Applicable Standards

The NeXXy-5 Series IP/AR Version2 and Series IP comply with the EN81-1 or GB code. For details of compliance with other national regulations, please consult our local agents.

---

**Horizontal Dimensions 1-Door 1-Gate**

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated capacity (kg)</th>
<th>Door type</th>
<th>Counterweight position</th>
<th>Car internal dimensions (mm) AA(A88)</th>
<th>Entrance width (mm) JJ</th>
<th>Minimum hoistway dimensions (mm)</th>
<th>Rated speed (m/sec)</th>
<th>Traveling (m) TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>P11</td>
<td>11</td>
<td>825</td>
<td>CO</td>
<td>Rear</td>
<td>1400x1350</td>
<td>900</td>
<td>1900x1800</td>
<td>1200x1500</td>
<td>TR≤60</td>
</tr>
<tr>
<td>P14</td>
<td>14</td>
<td>1050</td>
<td>CO</td>
<td>Rear</td>
<td>1600x1400</td>
<td>900</td>
<td>2100x1900</td>
<td>1200x1500</td>
<td>TR≤60</td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1275</td>
<td>CO</td>
<td>Rear</td>
<td>2000x1500</td>
<td>1000</td>
<td>2690x2165</td>
<td>1800x1500</td>
<td>TR≤60</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>1350</td>
<td>CO</td>
<td>Rear</td>
<td>2000x1500</td>
<td>1000</td>
<td>2690x2165</td>
<td>1800x1500</td>
<td>TR≤60</td>
</tr>
</tbody>
</table>

**Horizontal Dimensions 1-Door 2-Gate**

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated capacity (kg)</th>
<th>Door type</th>
<th>Counterweight position</th>
<th>Car internal dimensions (mm) AA(A88)</th>
<th>Entrance width (mm) JJ</th>
<th>Minimum hoistway dimensions (mm)</th>
<th>Rated speed (m/sec)</th>
<th>Traveling (m) TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>P11</td>
<td>11</td>
<td>825</td>
<td>CO</td>
<td>Side</td>
<td>1400x1350</td>
<td>900</td>
<td>1900x1800</td>
<td>1200x1500</td>
<td>TR≤60</td>
</tr>
<tr>
<td>P14</td>
<td>14</td>
<td>1050</td>
<td>CO</td>
<td>Side</td>
<td>1600x1400</td>
<td>900</td>
<td>2100x1900</td>
<td>1200x1500</td>
<td>TR≤60</td>
</tr>
<tr>
<td>P17</td>
<td>17</td>
<td>1275</td>
<td>CO</td>
<td>Side</td>
<td>2000x1500</td>
<td>1000</td>
<td>2690x2165</td>
<td>1800x1500</td>
<td>TR≤60</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>1350</td>
<td>CO</td>
<td>Side</td>
<td>2000x1500</td>
<td>1000</td>
<td>2690x2165</td>
<td>1800x1500</td>
<td>TR≤60</td>
</tr>
</tbody>
</table>

**Notes:**
- *1* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.
- *5* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.
- *7* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.
- *9* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.
- *11* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.
- *12* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.
- *18* When the car size is 1100x1350 and the counterweight is installed in a rear drop position. Please consult our local agents for details.

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**GB Code EN81-1**

<table>
<thead>
<tr>
<th>Code number</th>
<th>CO</th>
<th>2S</th>
<th>1-Door 1-Gate</th>
<th>1-Door 2-Gate</th>
</tr>
</thead>
<tbody>
<tr>
<td>P17</td>
<td>12</td>
<td>11</td>
<td>1100x2300</td>
<td>1200x2300</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>12</td>
<td>1350</td>
<td>1350</td>
</tr>
</tbody>
</table>

**GB Code EN81-2**

<table>
<thead>
<tr>
<th>Code number</th>
<th>CO</th>
<th>2S</th>
<th>1-Door 1-Gate</th>
<th>1-Door 2-Gate</th>
</tr>
</thead>
<tbody>
<tr>
<td>P17</td>
<td>12</td>
<td>11</td>
<td>1100x2300</td>
<td>1200x2300</td>
</tr>
<tr>
<td>P18</td>
<td>18</td>
<td>12</td>
<td>1350</td>
<td>1350</td>
</tr>
</tbody>
</table>

**Notes:**
- *1* When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- *2* When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- *3* When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- *4* When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- *5* When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.
- *6* When the elevator is 1-Door 1-Gate & 1-Door 2-Gate, the maximum height is 105m.

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**Applicable Standards**

The NeXXy-5 Series IP/AR Version2 and Series IP comply with the EN81-1 or GB code. For details of compliance with other national regulations, please consult our local agents.
Basic Specifications

(750kg to 1350kg)

1-Door 1-Gate

Hoistway Plan

Hoistway Section

1-Door 2-Gate

Hoistway Plan

Hoistway Section
### Basic Specifications (1600kg to 2500kg)

#### Horizontal Dimensions - 1-Door 1-Gate

<table>
<thead>
<tr>
<th>Code number</th>
<th>Number of persons</th>
<th>Rated capacity (kg)</th>
<th>Door type</th>
<th>Counterweight position</th>
<th>Car internal dimensions (mm)</th>
<th>Entrance width (mm)</th>
<th>Minimum hoistway dimensions (mm)</th>
<th>Rated speed (m/sec)</th>
<th>Maximum travel (m)</th>
<th>Maximum number of stops</th>
<th>Counterweight position</th>
<th>Minimum machine room clear height (mm)</th>
<th>Minimum pit depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P21</td>
<td>21</td>
<td>1600</td>
<td>CO</td>
<td>Rear</td>
<td>2000x1750</td>
<td>1100</td>
<td>2548x2460</td>
<td>0.75</td>
<td>4750</td>
<td>32</td>
<td>Rear</td>
<td>1410</td>
<td>2500*1</td>
</tr>
<tr>
<td>P24</td>
<td>24</td>
<td>1800</td>
<td></td>
<td></td>
<td>2100x1800</td>
<td>1100</td>
<td>2600x2550</td>
<td>1.0</td>
<td>4850</td>
<td>32</td>
<td>Rear</td>
<td>1410</td>
<td>2500*2</td>
</tr>
<tr>
<td>P27</td>
<td>27</td>
<td>2025</td>
<td></td>
<td>CO</td>
<td>2100x1950</td>
<td>1200</td>
<td>2648x2740</td>
<td>1.6</td>
<td>4900</td>
<td>32</td>
<td>Rear</td>
<td>1480</td>
<td>2500*1</td>
</tr>
<tr>
<td>P30</td>
<td>30</td>
<td>2250</td>
<td></td>
<td></td>
<td>2300x1950</td>
<td>1200</td>
<td>2800x2750</td>
<td>1.75</td>
<td>4950</td>
<td>32</td>
<td>Rear</td>
<td>1510</td>
<td>2500*1</td>
</tr>
<tr>
<td>P33</td>
<td>33</td>
<td>2500</td>
<td></td>
<td>CO</td>
<td>2300x2130</td>
<td>1200</td>
<td>2800x2930</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- The contents of this table are applied to standard specifications only. Please consult our local agents for other specifications.
- Rated capacity is calculated at 75kg per person, as required by the EN81-1 and GB code.
- CO: 2-panel center opening doors.
- Minimum hoistway dimensions (AH and BH) shown in the table are after waterproofing of the pit and do not include plumb tolerance.
- Minimum hoistway dimensions (AH and BH) should be increased if fireproof landing door is required.

#### Vertical Dimensions - 1-Door 1-Gate

<table>
<thead>
<tr>
<th>Rated capacity (kg)</th>
<th>Maximum travel (m)</th>
<th>Maximum number of stops</th>
<th>Counterweight position</th>
<th>Minimum overhead (mm)</th>
<th>Minimum pit depth (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.75</td>
<td>4750</td>
<td>32</td>
<td>Rear</td>
<td>2500*1</td>
<td>1410</td>
</tr>
<tr>
<td>1.0</td>
<td>4850</td>
<td>32</td>
<td>Rear</td>
<td>2500*2</td>
<td>1410</td>
</tr>
<tr>
<td>1.6</td>
<td>4900</td>
<td>32</td>
<td>Rear</td>
<td>2500*1</td>
<td>1480</td>
</tr>
<tr>
<td>1.75</td>
<td>4950</td>
<td>32</td>
<td>Rear</td>
<td>2500*1</td>
<td>1510</td>
</tr>
</tbody>
</table>

#### Hoistway Plan

- **Hoistway width AH:**
- **Car internal width AA:**
- **Entrance width JJ:**
- **Counterweight rear drop:**

#### Applicable Standards

The NexWay-S Series-IP complies with the EN81-1 or GB code. For details of compliance with other national regulations, please consult our local agents.
Work Not Included in Elevator Contract

The following items are excluded from Mitsubishi Electric’s elevator installation work, and 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 the walls and floors in the vicinity of the entrance hall after installation has been completed.
- Construction of an illuminated, ventilated and waterproofed elevator hoistway.
- A ladder to the elevator pit.
- The provision of cutting the necessary openings and joists.
- Separate beams, when the hoistway dimensions markedly exceed the specifications, and intermediate beams when two or more elevators are installed.
- All other work related to building construction.
- The machine room power-receiving panel and the electrical wiring for illumination, plus the electrical wiring from the electrical room to the power-receiving panel.
- 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, etc.
- 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.

* Work responsibilities in installation and construction shall be determined according to local laws. Please consult our local agents for details.

Elevator Site Requirements

- The temperature of the machine room and elevator hoistway shall be below 40˚C.
- The relative humidity shall be below 90% on a monthly average and below 95% on a daily average.
- Prevention shall be provided against icing and condensation occurring due to a rapid drop in the temperature 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.
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.

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

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