Based on our policy, “Quality in Motion”, we provide elevators and escalators that will satisfy our customers with high levels of comfort, efficiency, ecology and safety.

Principle

We strive to be green in all of our business activities.

We take every action to reduce environmental burden during each process of our elevators' and escalators' lifecycle.

Contents

The Evolution of Mitsubishi Quality

Freedom of Layout

Car Signal Fixtures

Hall Signal Fixtures

Functions

Profile

Design

Spec

Info

Capacity: 2000lbs ~ 4000lbs (for passenger)
Basic Specifications
Basic Layouts

Capacity: 4000lbs ~ 5000lbs (for service)
Basic Specifications
Basic Layouts
Car Hitch Beam
Entrance Layouts

Important Information on Elevator Planning
VVVF* inverter control has been adopted to ensure smoother and quieter door operations, thereby enhancing passenger safety and product reliability. Our innovative door operation system employs a highly efficient “one-chip RISC microcomputer” which detects the constant variations on each floor in the door load, the strength of the wind, and even sediment in the sill grooves. It adjusts the door open and close speeds, as well as the door motor torque as needed for each floor using the auto tuning function. The learning-capable Door load detector immediately reverses the doors when abnormal load is detected on the doors. Additionally, our robust door operators are structurally isolated from the cab to allow for smooth, quiet operation.

*VVVF: Variable Voltage Variable Frequency.

More technological advances, such as the high-accumulation LSI and low-noise PWM inverter, enable the VVVF inverter to deliver smooth, high-precision control of the traction machine. In addition, the IU (Inverter Unit) acts as a high-efficiency power supply circuit for the motor drive and, along with the PM motor, delivers greater energy savings. The result is a more efficient drive control.

The high-accumulation LSI integrating digital control circuitry has significantly increased the speed of the computer processing, enabling precise control of the traction motor during acceleration and deceleration. This innovation delivers a quality ride with the least noise and vibration.

Innovative technology increases efficiency and reliability

More technological advances, such as the high-accumulation LSI and low-noise PWM inverter, enable the VVVF inverter to deliver smooth, high-precision control of the traction machine. In addition, the IU (Inverter Unit) acts as a high-efficiency power supply circuit for the motor drive and, along with the PM motor, delivers greater energy savings. The result is a more efficient drive control.

Reduced torque ripple for a comfortable, smooth ride

The gearless traction machine with the new PM (permanent magnet) motor is packed with cutting-edge technology, such as our unique stator-core structure and built-in double brakes. This optimized motor design dramatically reduces the level of torque ripple for a smooth and quiet ride.

Ensuring that quality remains first-rate

Our elevators include features designed to reduce the need for maintenance – such as double brakes built into the PM motor. During scheduled maintenance, equipment in the top of the hoistway is easily accessible from the maintenance platform on top of the elevator cage. In addition, Mitsubishi Electric’s highly trained service personnel continually ensure that our elevators run smoothly and safely.

Mitsubishi Electric elevator quality is constantly evolving. Our machine-room-less elevator provides technological advances that deliver a world-class ride in terms of comfort, reliability and safety.
Mitsubishi Electric has succeeded in miniaturizing key elevator equipment. The gearless traction machine with PM motor is installed within the hoistway. This arrangement frees up space normally required for separate machine rooms or penthouses. Equipment is configured for easy maintenance from car top, and the entire compact system is optimally organized for performance and service.

Miniaturization of the hoisting machine using a permanent magnet gearless motor allows the machine to be placed inside the elevator hoistway. The result is a dramatic reduction in machine room size whereby only space for the controller needs to be considered. Furthermore, the controller room location is now more flexible, resulting in building design freedom.

More architectural freedom
Architects, builders, and even interior designers will appreciate the new design freedom that comes with the machine-room-less system. A machine room is no longer needed, as all machineries successfully fit into the hoistway, except the control panel, which can be placed within a 98-foot, 5-inch radius of the traction machine. Also, the load stress of our conventional elevator with a machine room applies on the building structure, whereas the guide rails of DIAMOND TRAC support as much as 75 percent of the stress, for building friendliness.

Machine room space savings*
Miniaturization of the hoisting machine using a permanent magnet gearless motor allows the machine to be placed inside the elevator hoistway. The result is a dramatic reduction in machine room size whereby only space for the controller needs to be considered. Furthermore, the controller room location is now more flexible, resulting in building design freedom.

*This product complies with both ASME A17.1 and other applicable codes.

Because the machine is installed within the hoistway, there are far fewer restrictions on building design. Architects and interior designers have more design freedom than ever before.
CAR SIGNAL FIXTURES

Car Operating Panels

- CBF-US111
  - Plastic round-type micro stroke click button (standard)

- CBV-US111
  - Stainless steel round-type micro stroke click button (option)

- CLV-US110
  - (option)

Car Lantern

- Faceplate
  - Stainless steel hairline
- Display panel
  - Smokey gray plastic, matt surface
- Direction and position indicator
  - Digital LED dot display, orange when illuminated
- Car button
  - Round-type micro stroke click button in gray plastic with milky white mark in center as response light (CBF-US111)
  - Round-type micro stroke click button in stainless steel (CBV-US111)
- Response light
  - LED lamp, yellow-orange when illuminated
- Braille plate
  - Black plate with tactile floor name, symbol and Braille next to car button

Hall Buttons

- HBF-US110
  - Plastic round-type micro stroke click button (standard)
  - Stainless steel round-type micro stroke click button (option)

- HBV-US110
  - (option)

- HLV-US210
  - (standard)
  - Stainless steel hairline
  - Lighting
    - Clear acrylic, yellow-orange when UP side is illuminated, and red when DOWN side is illuminated

- HLV-US110
  - (option)
  - Stainless steel hairline
  - Lighting
    - Clear acrylic, yellow-orange when UP side is illuminated, and red when DOWN side is illuminated

Hall Lanterns

- HLV-US210
  - (option)
  - (Built into the wall)

- CLV-US110
  - (option)

- HLV-D-US20
  - Lighting
    - Milky white acrylic, yellow-orange when UP side is illuminated, and red when DOWN side is illuminated

Actual elevator color may differ slightly from that shown.
Standard Features

**OPERATIONAL AND SERVICE FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>1Car/2BC</th>
<th>2Car/2BC</th>
<th>3-4Car/3-8Car</th>
<th>3-8Car/ EN-1856C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car Call Cancelling (CCC)</td>
<td>When a car has responded to the final car call in one direction, the system regards remaining calls in the other direction as errors and directs them from the memory.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Continuity of Service (CONS)</td>
<td>A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Automatic Hall Call Registration (FA)</td>
<td>If an open car cannot carry all waiting passengers because it is full, another car will automatically be assigned for the remaining passengers.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Backup Operation for Group Control Microprocessor (GCPK)</td>
<td>An operation by controllers which automatically starts to maintain elevator operation in the event that a microporcessor or transmission line in the group controller has failed.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Next Landing (NL)</td>
<td>If the elevator doors do not open fully at a destination floor, the doors close and the car automatically moves to the next or nearest floor, where the doors will open.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Overload Holding (OLH)</td>
<td>A buzzer sounds to alert the passengers that the car is overloaded; the doors remain open and the car does not leave that floor until enough passengers exit the car.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Safe Landing (SFL)</td>
<td>If a car has stopped between floors due to equipment malfunction, the controller checks the cause, and if it is considered safe to operate; the doors will open at the nearest floor at a low speed and the doors will move.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Independent Service (IND)</td>
<td>Exclusive operation where a car is withdrawn from group control operation for independent use, such as maintenance or repair, and responds only to car calls.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Automatic Bypass (ABP)</td>
<td>A fully loaded car bypasses half calls in order to maintain maximum operational efficiency.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Car Light Shut Off – Automatic (CLO-A)</td>
<td>If there are no calls for a specified period, the car lighting will automatically shut off to conserve energy.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Car Fan Shut Off – Automatic (CFL-A)</td>
<td>If there are no calls for a specified period, the car ventilation fan will automatically turn off to conserve energy.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>False Call Cancelling – Automatic (FCC-A)</td>
<td>If the number of registered car calls does not correspond to the car load, all calls are canceled to avoid unnecessary stops.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
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**GROUP CONTROL FEATURES**

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<tr>
<th>Feature</th>
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<th>1Car/2BC</th>
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<th>3-8Car/ EN-1856C</th>
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<tbody>
<tr>
<td>Expert System and Fuzzy Logic</td>
<td>Artificial expert knowledge, which has been programmed using “expert system” and “fuzzy logic,” is applied to select the ideal operational rule for maximum efficiency of group control operations.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Psychological Waiting Time Evaluation</td>
<td>Cars are allocated according to the predicted psychological waiting time for each half call. The rule evaluating psychological waiting time is automatically changed in response to actual service conditions.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Car Travel Time Evaluation</td>
<td>Cars are allocated to half calls by considering the number of car calls that will reduce passenger waiting time in each half and the travel time of each car.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Peak Traffic Control (PTC)</td>
<td>A floor which temporarily has the heaviest traffic will be served with higher priority than other floors, but not to an extent that interferes with service to other floors.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Strategic Offensive Planning (SOP)</td>
<td>The system predicts a potential hall call which could cause longer waiting time. Car assignment is performed considering not only current and new calls but also near-future calls.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Cooperation Optimization Assignment</td>
<td>The system predicts a potential hall call which could cause longer waiting time. Car assignment is performed considering not only current and new calls but also near-future calls.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
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**EMERGENCY OPERATIONS AND FEATURES**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Firefighter’s Emergency Operation (FE)</td>
<td>In case of fire, the elevator performs firefighters’ emergency operation (Phase I and Phase II) conforming to the local code.</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
<tr>
<td>Earthquake Emergency Operation (EEU-LW)</td>
<td>In case of earthquake detection, the elevator stops at the nearest available floor and shuts down with the door open. (Detailed operation conforms to the local code.)</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
<td>✔️ ✔️ ✔️ ✔️</td>
</tr>
</tbody>
</table>
**FUNCTIONS**

**Optional Features**

- **Non-ServicetoSpecificFloors-CarButonType(SNS-CB)**
  - To enhance security, service to desired floors can be set to disable using the car operating panel. This function is automatically deactivated during emergency operations.
  - **YES (SNS-CB)**

- **Switch Type(SW)**
  - A switch type for independent group control operation to serve special needs or different floors.
  - **YES (SW)**

- **Closed-CarPriorityService(CPS)**
  - A function to give priority allocation to the car closed to the floor where a call has been pressed, or to reverse the closing doors of the car closed to the pressed hall button on that floor. (Cannot be combined with Hall Position Indications.)
  - **YES (CPS)**

- **EnergySavingOperation-NumberOfCars(ESOP-NC)**
  - To save energy, the number of service cars is automatically reduced to some extent but not so much as to adversely affect passenger waiting time.
  - **YES (ESOP-NC)**

- **MainFloorParking(MFP)**
  - All cars in a bank automatically make a stop at a predetermined floor on every trip without being called.
  - **YES (MFP)**

- **MainFloorChangeoverOperation(MFCO)**
  - This feature is effective for buildings with two main floors. The floor designated as the "Main floor" in a group control operation can be changed as necessary using a manual switch.
  - **YES (MFCO)**

- **Light-CarPriorityOperation(LCPO)**
  - When a passenger enters a destination floor at a hall, the hall operating panel indicates which car will serve the floor. The passenger does not need to press a button in the car. Depending passengers by destination prevents congestion in the cars and minimizes waiting and traveling time. (Cannot be combined with Hall Position Indications.)
  - **YES (LCPO)**

- **SwingService(GSWS)**
  - A car is automatically split from the group to work as a single car. The designated one car to mail deliveries or facility maintenance through certain parts of the day.
  - **YES (GSWS)**

- **DestinationOrientationAllocationSystem(DOAS)**
  - To maximize transport efficiency, an elevator bank is divided into two groups of cars to serve upper and lower floors separately during peak period. 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.
  - **YES (DOAS)**

- **IntenseUpPeak(IUP)**
  - When an elevator enters a destination floor at a hall, the hall operating panel indicates which car will serve the floor. The passenger does not need to press a button in the car. Depending passengers by destination prevents congestion in the cars and minimizes waiting and traveling time. (Cannot be combined with some features. Please consult your local sales office for details.)
  - **YES (IUP)**

- **UpPeakService(UPS)**
  - Controls 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.
  - **YES (UPS)**

- **DozenPeakService(DPS)**
  - Controls 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.
  - **YES (DPS)**

**GROUP CONTROL FEATURES**

- **Bank-SeparationOperation(BSO)**
  - Hall buttons and the cars called by each button can be divided into several groups for independent group control operation to serve special needs or different floors.
  - **YES (BSO)**

- **Closed-CarPriorityService(CPS)**
  - A function to give priority allocation to the car closed to the floor where a call has been pressed, or to reverse the closing doors of the car closed to the pressed hall button on that floor. (Cannot be combined with Hall Position Indications.)
  - **YES (CPS)**

- **SpecialCarPriorityService(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 Indications.)
  - **YES (SCPS)**

- **SpecialFloorPriorityService(SFPS)**
  - 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 Indications.)
  - **YES (SFPS)**

- **MainFloorChangeoverOperation(MFCO)**
  - This feature is effective for buildings with two main floors. The floor designated as the "Main floor" in a group control operation can be changed as necessary using a manual switch.
  - **YES (MFCO)**

- **Light-CarPriorityOperation(LCPO)**
  - When a passenger enters a destination floor at a hall, the hall operating panel indicates which car will serve the floor. The passenger does not need to press a button in the car. Depending passengers by destination prevents congestion in the cars and minimizes waiting and traveling time. (Cannot be combined with Hall Position Indications.)
  - **YES (LCPO)**

- **SwingService(GSWS)**
  - A car is automatically split from the group to work as a single car. The designated one car to mail deliveries or facility maintenance through certain parts of the day.
  - **YES (GSWS)**

- **DestinationOrientationAllocationSystem(DOAS)**
  - To maximize transport efficiency, an elevator bank is divided into two groups of cars to serve upper and lower floors separately during peak period. 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.
  - **YES (DOAS)**

- **IntenseUpPeak(IUP)**
  - When an elevator enters a destination floor at a hall, the hall operating panel indicates which car will serve the floor. The passenger does not need to press a button in the car. Depending passengers by destination prevents congestion in the cars and minimizes waiting and traveling time. (Cannot be combined with some features. Please consult your local sales office for details.)
  - **YES (IUP)**

- **UpPeakService(UPS)**
  - Controls 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.
  - **YES (UPS)**

- **DozenPeakService(DPS)**
  - Controls 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.
  - **YES (DPS)**

**DOOR OPERATION FEATURES**

- **ExtendedDoor-Open(DoorHold)**
  - A button located inside a car which keeps the doors open for a longer than usual period to allow loading and unloading of a stretcher, luggage, etc.
  - **YES (DoorHold)**

- **3D Multi-BeamDoorSensor**
  - Multiple-infrared light beams cover some 9'-10 3/4" in height of the doors as they close to detect passengers or objects. The 3D sensor can also monitor the hall by expanding multiple infrared light beams.
  - **YES (3D Multi-BeamDoorSensor)**

**SIGNAL AND DISPLAY FEATURES**

- **Voice Guidance System(AAN-G)**
  - Information on elevator service such as the current floor or service direction that is heard by the passengers inside a car. (Voice guidance available only in English)
  - **YES (AAN-G)**

- **CarArrivalChime-Hall(AECH)**
  - Electronic chimes that sound to indicate that a car will soon arrive. (The chimes are mounted in each hall)
  - **YES (AECH)**

- **ImmediatePredictionIndication(IP)**
  - When a passenger has registered a hall call, the last car to respond to that call is immediately selected, the corresponding hall lantern illuminates and a chime sounds to indicate which doors will open.
  - **YES (IP)**

- **SecondCarPrediction(SPC)**
  - When a hall is crowded to the extent that one car cannot accommodate all waiting passengers, the hall lantern will light up to indicate the next car to serve the hall.
  - **YES (SPC)**

- **MainCommunicationSystem(MCS)**
  - A system which allows communication between passengers inside a car and the building personnel.
  - **YES (MCS)**

**EMERGENCY OPERATIONS AND FEATURES**

- **MitsubishiEmergencyLanding(HEL)**
  - Mitsubishi Emergency Landing is mechanically operated from an inconspicuous riser of pushbuttons mounted in the doors jamb.
  - **YES (HEL)**

- **EmergencyLiftCable-Brake(System-2JCB)**
  - Carighting which turns on immediately when power fails to provide a minimum level of lighting within the car. (Choice of dry-cell battery or trickle-charge battery)
  - **YES (2JCB)**

- **MitsubishiEmergencyLandingService(MELS)**
  - In case of 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 ensure passenger safety. (Max. allowable floor-to-floor distance is 32'-10")
  - **YES (MELS)**

- **MitsubishiEmergencyLiftService(MELS)**
  - In case of 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 ensure passenger safety. (Max. allowable floor-to-floor distance is 32'-10")
  - **YES (MELS)**

- **MitsubishiEscalatorsMonitoringandControlSystem**
  - Monitoring and control system that monitors and controls escalators and elevators using an advanced Web-based technology which provides an interface through personal computers. Special optional features, such as preparation of traffic statistics and analytics, are also available.
  - **YES (MitsubishiEscalatorsMonitoringandControlSystem)**

- **OperationbyEmergencyPowerSource-Automatic(EPES-AU)**
  - In case of power failure, the elevator moves to the designated floor and opens the door to ensure the safety of passengers. Then, the elevator will operate by emergency power until normal power recovery. (Detailed operation conforms to the local code.)
  - **YES (EPES-AU)**

- **SupervisoryPanel(SW)**
  - A panel installed in a building’s supervisory room, which monitors and controls each elevator’s status and operations by remotely using indicators and switches provided on request.
  - **YES (SupervisoryPanel)**

Notes: 1. Not applicable: #1 Please consult your local sales office for least times and details. 2. AECCH is standard feature when 3-8 car AI-2200C is applied. 3. DOAS cannot be combined with BSO, IUP, UPS, TFS, AAN-G, FCC-A, DKO-TB or TCP feature.
For passenger CAPACITY: 2000lbs ~ 4000lbs

Capacity, Rated Speed, Door Type, Car Inside & Hoistway Dimensions*1

<Rated Speed 200FPM to 500FPM>

<table>
<thead>
<tr>
<th>Opening</th>
<th>Rated speed (fpm)</th>
<th>Capacity (lbs)</th>
<th>Door type</th>
<th>CWT Location</th>
<th>BH: Depth (ft./in.)</th>
<th>PD: Depth (ft./in.)</th>
<th>Minimum hoistway dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>200</td>
<td>3500</td>
<td>SS</td>
<td>Front</td>
<td>7'-6 1/2&quot;</td>
<td>8'-0&quot;</td>
<td>8'-11&quot;</td>
</tr>
<tr>
<td>Front &amp; Rear</td>
<td>200</td>
<td>3500</td>
<td>SS or CO</td>
<td>Rear</td>
<td>7'-6 1/2&quot;</td>
<td>8'-0&quot;</td>
<td>8'-11&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>250</td>
<td>3500</td>
<td>SS</td>
<td>Rear</td>
<td>7'-6 1/2&quot;</td>
<td>8'-0&quot;</td>
<td>8'-11&quot;</td>
</tr>
<tr>
<td>Front &amp; Rear</td>
<td>250</td>
<td>3500</td>
<td>SS or CO</td>
<td>Rear</td>
<td>7'-6 1/2&quot;</td>
<td>8'-0&quot;</td>
<td>8'-11&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>300</td>
<td>3500</td>
<td>SS</td>
<td>Rear</td>
<td>7'-6 1/2&quot;</td>
<td>8'-0&quot;</td>
<td>8'-11&quot;</td>
</tr>
<tr>
<td>Front &amp; Rear</td>
<td>300</td>
<td>3500</td>
<td>SS or CO</td>
<td>Rear</td>
<td>7'-6 1/2&quot;</td>
<td>8'-0&quot;</td>
<td>8'-11&quot;</td>
</tr>
</tbody>
</table>

<Rated Speed 200FPM and 350FPM>

<table>
<thead>
<tr>
<th>Opening</th>
<th>Capacity (lbs)</th>
<th>Rated speed (fpm)</th>
<th>Minimum hoistway dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>2000</td>
<td>200</td>
<td>14'-1&quot; 15'-11 1/16&quot; 16'-10 11/16&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>2500</td>
<td>200</td>
<td>14'-1&quot; 15'-11 1/16&quot; 16'-10 11/16&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>3000</td>
<td>200</td>
<td>14'-1&quot; 15'-11 1/16&quot; 16'-10 11/16&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>3500</td>
<td>200</td>
<td>14'-1&quot; 15'-11 1/16&quot; 16'-10 11/16&quot;</td>
</tr>
</tbody>
</table>

<Rated Speed 400FPM and 500FPM>

<table>
<thead>
<tr>
<th>Opening</th>
<th>Capacity (lbs)</th>
<th>Rated speed (fpm)</th>
<th>Minimum hoistway dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>2000</td>
<td>400</td>
<td>8'-5&quot; 9'-7&quot; 10'-0 11/16&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>2500</td>
<td>400</td>
<td>8'-5&quot; 9'-7&quot; 10'-0 11/16&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>3000</td>
<td>400</td>
<td>8'-5&quot; 9'-7&quot; 10'-0 11/16&quot;</td>
</tr>
<tr>
<td>Front</td>
<td>3500</td>
<td>400</td>
<td>8'-5&quot; 9'-7&quot; 10'-0 11/16&quot;</td>
</tr>
</tbody>
</table>

Notes
*1. The contents of these tables are standard specifications. They are based on ASME A17.1 and applicable to both seismic and non-seismic zones.
*2. Please consult your local sales office for other specifications. (Email: EEDSALES@meus.mea.com)
*3. Minimum hoistway dimensions (AH, BH, PD, OH) are for standard specifications.
*4. AH dimensions indicate for one car. For AH dimensions of 2 and 3 car, please refer to left table. AH dimension in 2 and 3 car layout is same as AH of 1 car.
*5. These are values after waterproofing and do not include plenum tolerance.
*6. Pit depth in this drawing is obtained when floor recess is 3/4". When floor recess is greater than 3/4", extend pit depth as well. Max. floor recess is 1 1/4".
*7. If occupied space below hoistway is provided, required hoistway dimensions will be changed. Please consult your local sales office for details.

Specifications

<table>
<thead>
<tr>
<th>Rated Speed</th>
<th>Capacity (lbs)</th>
<th>Traction motor (HP)</th>
<th>FLU (A)</th>
<th>FLAcc (A)</th>
<th>Power supply capacity (kVA)</th>
<th>Heat emission (BTU/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>7.5</td>
<td>21</td>
<td>12</td>
<td>7</td>
<td>3070</td>
<td>2730</td>
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<tr>
<td>2500</td>
<td>9.5</td>
<td>21</td>
<td>15</td>
<td>8</td>
<td>3750</td>
<td>3240</td>
</tr>
<tr>
<td>3000</td>
<td>11.9</td>
<td>21</td>
<td>18</td>
<td>9</td>
<td>3580</td>
<td>3750</td>
</tr>
<tr>
<td>3500</td>
<td>13.3</td>
<td>21</td>
<td>20</td>
<td>10</td>
<td>3750</td>
<td>4270</td>
</tr>
<tr>
<td>4000</td>
<td>14.6</td>
<td>21</td>
<td>22</td>
<td>11</td>
<td>4270</td>
<td>4780</td>
</tr>
<tr>
<td>5000</td>
<td>16.1</td>
<td>21</td>
<td>25</td>
<td>12</td>
<td>5120</td>
<td>5300</td>
</tr>
</tbody>
</table>

Power Feeder Data for One Car*11

<table>
<thead>
<tr>
<th>Rated Speed</th>
<th>Capacity (lbs)</th>
<th>Traction motor (HP)</th>
<th>FLU (A)</th>
<th>FLAcc (A)</th>
<th>Power supply capacity (kVA)</th>
<th>Heat emission (BTU/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>7.5</td>
<td>21</td>
<td>12</td>
<td>7</td>
<td>3070</td>
<td>2730</td>
</tr>
<tr>
<td>2500</td>
<td>9.5</td>
<td>21</td>
<td>15</td>
<td>8</td>
<td>3750</td>
<td>3240</td>
</tr>
<tr>
<td>3000</td>
<td>11.9</td>
<td>21</td>
<td>18</td>
<td>9</td>
<td>3580</td>
<td>3750</td>
</tr>
<tr>
<td>3500</td>
<td>13.3</td>
<td>21</td>
<td>20</td>
<td>10</td>
<td>3750</td>
<td>4270</td>
</tr>
<tr>
<td>4000</td>
<td>14.6</td>
<td>21</td>
<td>22</td>
<td>11</td>
<td>4270</td>
<td>4780</td>
</tr>
<tr>
<td>5000</td>
<td>16.1</td>
<td>21</td>
<td>25</td>
<td>12</td>
<td>5120</td>
<td>5300</td>
</tr>
</tbody>
</table>

Notes
*1. Start / hour (time) is as follows.
*2. Some of specifications require more than the value 8'-11" as a minimum height. Please consult your local sales office if floor height is less than 8'-11".
*3. FLU, FLAcc current (A) at E = (Current at 480V) x (480 / E) (E: Power supply voltage (V))
For passenger  CAPACITY: 2000lbs ~ 4000lbs

- Front Opening
  Hoistway Plan (example)

- Hoistway Section

For passenger  CAPACITY: 3500lbs

- Front & Rear Opening
  Hoistway Plan

- Hoistway Section
## Basic Specifications

For service  **CAPACITY: 4000 lbs ~ 5000 lbs**

### Capacity, Rated Speed, Door Type, Car Inside & Hoistway Dimensions

#### <Rated Speed 200FPM and 350FPM>

<table>
<thead>
<tr>
<th>Configura-tion</th>
<th>Opening</th>
<th>Capacity (lbs)</th>
<th>Door type*2</th>
<th>CWT Location</th>
<th>Entrance width JJ (ft./in.)</th>
<th>Minimum hoistway dimensions*5</th>
<th>Rated speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PD (ft./in.)*5,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>200FPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>350FPM</td>
</tr>
<tr>
<td>Service</td>
<td>Front</td>
<td>4000</td>
<td>5'-8&quot;</td>
<td>6'-1&quot;</td>
<td>15'-2&quot;</td>
<td>5'-10&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4500</td>
<td>5'-8&quot;</td>
<td>6'-1&quot;</td>
<td>15'-2&quot;</td>
<td>5'-10&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Front &amp; Rear</td>
<td>5000</td>
<td>5'-8&quot;</td>
<td>6'-1&quot;</td>
<td>15'-2&quot;</td>
<td>5'-10&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Notes
*1. The contents of these tables are standard specifications. They are based on ASME A17.1 and applicable to both seismic and non-seismic zones.
*2. 2S : 2-Speed side-open doors
*3. Hoistway dimensions (AH, BH, PD, OH) are for standard specifications.
*4. The AH dimensions indicate for one car. For AH dimensions of 2 and 3 car, please refer to left table.
*5. Pit depth in this drawing is obtained when floor recess is 3/4".
*6. The minimum OH dimensions are obtained on condition that:
   - A. Canopy height = 8'-0"
   - B. OH dimensions do not include the hoisting beams.
   - C. Please consult your structural engineer for hoisting beam size, but please consider allowing 8" - 10" (8" beam + 2" gap).

### Specifications

#### Power Feeder Data for One Car

<table>
<thead>
<tr>
<th>Rated speed (fpm)</th>
<th>Capacity (lbs)</th>
<th>Traction motor (HP)</th>
<th>Current at 480V (A)</th>
<th>Power supply capacity (kVA)</th>
<th>Heat emission (BTU/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>4000</td>
<td>16.1</td>
<td>23</td>
<td>40</td>
<td>12</td>
</tr>
<tr>
<td>350</td>
<td>4000</td>
<td>17.4</td>
<td>26</td>
<td>45</td>
<td>13</td>
</tr>
</tbody>
</table>

Notes
*9. Some of specifications require more than the value 8'-11" as a minimum height.
*10. If power supply voltage is other than 480V, FLU and FLAcc current are obtained by the following formulas.
   - FLU, FLAcc current (A) at E = (Current at 480V) x (480/E)
*11. Heat emitted from car lighting is included.
*12. Start / hour (time) is as follows:
   - Rated speed 200fpm: 120 times
   - Rated speed 350fpm: 150 times
CAR HITCH BEAM

For passenger  CAPACITY: 2000lbs ~ 4000lbs

Height of through hole for car hitch beam [HHC]*1

<table>
<thead>
<tr>
<th>Rated speed (fpm)</th>
<th>HHC (lbs)</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>12'-5 7/8&quot;</td>
<td>2000lbs</td>
</tr>
<tr>
<td>400</td>
<td>12'-6 7/8&quot;</td>
<td>3500lbs</td>
</tr>
<tr>
<td>500</td>
<td>12'-7 7/8&quot;</td>
<td>4000lbs</td>
</tr>
</tbody>
</table>

*1: The HHC dimensions are obtained when canopy height = 8'-0".

Reaction loads <Rated Speed 200FPM and 350FPM>

<table>
<thead>
<tr>
<th>Opening</th>
<th>Front</th>
<th>Front &amp; Rear</th>
<th>Min. 3 15/16&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity (lbs)</td>
<td>RA (lbs)</td>
<td>RB (lbs)</td>
<td>Static, Dynamic</td>
</tr>
<tr>
<td>2000</td>
<td>770</td>
<td>990</td>
<td>4000</td>
</tr>
<tr>
<td>3000</td>
<td>770</td>
<td>990</td>
<td>5000</td>
</tr>
<tr>
<td>4000</td>
<td>770</td>
<td>990</td>
<td>6000</td>
</tr>
</tbody>
</table>

Rated speed (fpm)  HHC (ft./in.)

200 12'-5 7/8"
350 12'-6 7/8"

For service  CAPACITY: 4000lbs ~ 5000lbs

Height of through hole for car hitch beam [HHC]*1

<table>
<thead>
<tr>
<th>Rated speed (fpm)</th>
<th>HHC (lbs)</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>12'-5 7/8&quot;</td>
<td>2000lbs</td>
</tr>
<tr>
<td>400</td>
<td>12'-6 7/8&quot;</td>
<td>3500lbs</td>
</tr>
<tr>
<td>500</td>
<td>12'-7 7/8&quot;</td>
<td>4000lbs</td>
</tr>
</tbody>
</table>

*1: The HHC dimensions are obtained when canopy height = 8'-0".

Reaction loads

<table>
<thead>
<tr>
<th>Opening</th>
<th>Front</th>
<th>Front &amp; Rear</th>
<th>Min. 3 15/16&quot;</th>
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</thead>
<tbody>
<tr>
<td>Capacity (lbs)</td>
<td>RA (lbs)</td>
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</tr>
<tr>
<td>2000</td>
<td>770</td>
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</tr>
<tr>
<td>3000</td>
<td>770</td>
<td>990</td>
<td>5000</td>
</tr>
<tr>
<td>4000</td>
<td>770</td>
<td>990</td>
<td>6000</td>
</tr>
</tbody>
</table>

Support beam

Steel plate

Elongated holes

For Concrete and Masonry Wall Construction

Section A-A

Section B-B

Section C-C

For Dry Wall Construction

Section A-A

Section B-B

Section C-C
ENTRANCE LAYOUTS

For Concrete and Masonry Wall Construction

- Single-Slide door (section C-C)
- Center-Open doors (section C-C)
- 2-Speed side-open doors (section C-C)

For Dry Wall Construction

- 6 1/2 Single-Slide door (section C-C)
- Center-Open doors (section C-C)
- 2-Speed side-open doors (section C-C)
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:

• Architectural finishing of 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.
• Provisions for cutting the necessary openings and joints.
• 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.
• 3-phase, horsepower rated, lockout type, fused disconnect or circuit breaker, including provision of 3-phase electrical service to elevators.
• Elevator group control disconnect switch, if applicable.
• Control room lighting and duplex outlets.
• Power source for seismic switch, if applicable.
• 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 during installation work and test operations.
• Test provisions and subsequent alteration as required, 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.
• 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.
• Divider beams and structural attachment points for rail brackets are by others and will be located as needed on Mitsubishi Electric shop drawings.
• Temporary work platform overhead.
• Smoke detectors in the hoistway near the machines, as required by code.

* Work responsibilities in installation and construction shall be determined according to local laws. Please consult your local sales office for details.

Elevator Site Requirements

• The temperature of the elevator hoistway and control panel room shall be above 23 F (-5 C) and below 104 F (40 C).
• The following conditions are required for maintaining elevator performance:
  a. The relative humidity shall be below 90% on a monthly average and below 95% on a daily average.
  b. Prevention shall be provided against icing and condensation occurring due to a rapid drop in the temperature in the elevator hoistway.
  c. The elevator hoistway shall be finished with mortar or other materials so as to prevent concrete dust.
• Voltage fluctuation shall be within a range of +5% to -10%.

Ordering Information

Please include the following information when ordering or requesting estimates:

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

Contact your Mitsubishi Electric representative for more information.