Our new escalator Series Z offers more than just a way to carry passengers.

Aesthetic elegance and flexibility are concepts expected more than ever. Our new escalator Series Z comes in a simple, yet sophisticated design, offering the utmost in flexibility to blend with any building decor. Our years of experience in safety-oriented production, based on a strong belief in the importance of safety, have led to a variety of safety features, as well as a wide range of value-added functions that help you customize your own escalators, creating uniqueness in and incomparable value for your building properties.

The Mitsubishi Electric Series Z Escalator fulfills and indeed exceeds customer expectations, through the collaboration and utmost performance of visual, functional and safety elements.

Feel the elegance, high quality and comfort of the Series Z in your building.

Models for various scenes 3-4

Features that blend with architecture 5-6

Brings elegance and sophistication to your building

Safety-oriented and customer-friendly designs 7-8

Offers enhanced safety and comfort

Versatile functions to select from 9-10

Enables customization for uniqueness

Standard specifications 11

Specifications 12

Safety devices 13-14

Layout 15-16

Cautions for outdoor use / Remote monitoring 17
The simplest of designs blends with any building decor, adding a quiet, sophisticated air to your architecture.

Stainless steel panel that exudes strength and durability.

Dimensions

- Max rise: 22'-11 19/32" (7000mm)*1
- Inclination: 30°
- Step width
  - Type S24": 1'-11 25/32" (5600: 564mm)
  - Type S32": 2'-7 13/32" (5800: 804mm)
  - Type S40": 3'-3 17/32" (51000: 1004mm)

Moving Handrail height

- 3'-1 13/32" (950mm)

*1: Please contact your Mitsubishi Electric representative for rises exceeding 22'-11 19/32" (7000mm).
Our new Escalator Series Z serves passengers naturally and peacefully.

Features that blend with architecture

Rounded Handrail Inlet Cap
Our rounded Handrail Inlet Cap streamlines with the Moving Handrails, lending a silent elegance to the boarding and landing areas.

Screw-free Inner Deck
Removing screws from the Inner Deck side face not only presents an even softer, more simple look, but also removes the danger of passengers snagging their clothes.

Clearly-contrasted Floor Plate
For improved visibility and smoother passenger flows, extended areas from the Moving Handrails feature different pattern with a clear contrast.

Space Saving
Shortening the Truss by 1 25/32" (45mm)* requires less escalator installation space and increases freedom in building layout.

* Compared with the Mitsubishi Electric Series J Escalator (for ASME A17.1).

Colors available for Moving Handrails (rubber)

<table>
<thead>
<tr>
<th>Color Code</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.0001</td>
<td>Black</td>
</tr>
<tr>
<td>No.0502</td>
<td>Red</td>
</tr>
<tr>
<td>No.0503</td>
<td>Yellow</td>
</tr>
<tr>
<td>No.0504</td>
<td>Green</td>
</tr>
<tr>
<td>No.0505</td>
<td>Blue</td>
</tr>
<tr>
<td>No.0506</td>
<td>Light gray</td>
</tr>
<tr>
<td>No.0507</td>
<td>Brown</td>
</tr>
</tbody>
</table>

Only “No. 0001 Black” is standard. Other colors are optional.

Handrail colors for outdoor use are different from those shown on this page. Please contact your Mitsubishi Electric representative for details. Handrail colors shown in photos may differ slightly from the actual colors on products.
Comb with Smaller Angle

Mitsubishi recognizes how critical the Comb teeth angle is: even a small gap between the Comb and Step can result in a serious accident. Putting our years of experience and research to full use, we have made the angle the smallest it can be (10° to the horizontal) to keep passengers and items such as baggage from stumbling or getting caught between the Comb and Step.

Brighter Demarcation Color

Attention to the smallest details is the chief theme of Mitsubishi’s safety criteria, and the color of the Demarcation Line is no exception. The yellow Step and Comb Demarcation Line comes as standard and its brightness has been improved to provide better visibility of the Step, Comb and Floor Plate than in our other models.

Step with Anti-Slip Grooves

Grooves along the corner edge of each Step improve anti-slip performance while improving the visibility of each Step for further passenger safety, especially in downward operation.

Tiered Demarcation Line

Demarcation along both sides of a Step extrudes from the Step surface, thereby preventing passengers from getting too close or coming into direct contact with the Skirt Guard.

Fluoropolymer Coating on Skirt Guard

The Skirt Guard can be coated with a friction-reducing resin to reduce the chance of passengers stumbling when their shoes come in contact with the Skirt Guard.

Step Demarcation Lighting

Lighting provided under the Steps around the landing areas. This improves passenger safety by giving passengers clear indication of borders of green light emitted from the gap between Steps, Step and Skirt Guard.

Safety-oriented and customer-friendly designs

You’ll truly feel the difference.
Safety and ride comfort are the ultimate goals for Mitsubishi.
**Handrail Inlet Cap**

**LED Indicator**

LED lamps form an arrow to indicate the escalator’s traveling direction for boarding, or a No-Entry sign at the landing areas.

**Inlet Sensor**

This sensor keeps any passengers or foreign objects away from the Handrail Inlet, a warning buzzer and voice sounding when a person or object comes close to the Inlet.

**Floor Numbers on Floor Plates**

Floor Numbers can be engraved on each Floor Plate to help passengers quickly identify which floor they are on. Anti-slip patterns on the surface also provide increased safety.

A wide range of optional features help you customize your own escalators, contributing to increased property value.

**Polyurethane Moving Handrail**

Available as an option. Moving Handrails made of polyurethane are highly resistant to dirt on their surface and create a shiny, brighter look.

Colors available for polyurethane Moving Handrails:

- No.5001 Black
- No.5002 Violet
- No.5003 Red
- No.5004 Yellow
- No.5005 Light gray
- No.5007 Light brown
- No.5008 Navy blue
- No.5009 Light gray
- No.5010 White gray

*1: Not applicable to outdoor use.*
### Basic specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>S24&quot; (S600)</th>
<th>S32&quot; (S800)</th>
<th>S40&quot; (S1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Models</td>
<td>ZS / ZP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Codes</td>
<td>ASME A17.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>AC 3-phase, 60Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lighting power supply</td>
<td>AC single-phase, 60Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated speed</td>
<td>1000rpm (0.5m/sec)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control system</td>
<td>Standard: AC1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport capacity* (person)</td>
<td>4500</td>
<td>6750</td>
<td>9000</td>
</tr>
<tr>
<td>Inclination</td>
<td>30°</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic pier</td>
<td>Standard: None</td>
<td>Option: Available</td>
<td></td>
</tr>
<tr>
<td>Min. rise</td>
<td>Indoor / Semi-outdoor: 7'-2 23/32&quot; (2203mm)</td>
<td>Outdoor: 8'-3 1/32&quot; (2515mm)</td>
<td></td>
</tr>
<tr>
<td>Max. rise</td>
<td>22'-11 19/32&quot; (7000mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step width</td>
<td>1'-11 23/32&quot; (364mm)</td>
<td>2'-7 1/32&quot; (644mm)</td>
<td>3'-3 17/32&quot; (1004mm)</td>
</tr>
<tr>
<td>Escalator width</td>
<td>3'-9 5/32&quot; (1150mm)</td>
<td>4'-5 3/32&quot; (1350mm)</td>
<td>5'-1 1/32&quot; (1550mm)</td>
</tr>
<tr>
<td>Between Moving Handrails</td>
<td>2'-0 1/32&quot; (844mm)</td>
<td>2'-7 1/32&quot; (1004mm)</td>
<td>3'-3 3/32&quot; (1150mm)</td>
</tr>
<tr>
<td>Between Skirt Guards</td>
<td>2'-9 1/16&quot; (840mm)</td>
<td>3'-4 1/16&quot; (1040mm)</td>
<td>4'-0 1/16&quot; (1240mm)</td>
</tr>
<tr>
<td>Truss width</td>
<td>4'-3 3/32&quot; (1250mm)</td>
<td>4'-9 7/32&quot; (1450mm)</td>
<td>5'-4 31/32&quot; (1650mm)</td>
</tr>
<tr>
<td>Floor opening</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: Not applicable to semi-outdoor and outdoor use.

*2: Transport capacity varies depending on actual traffic conditions, so some dimensions and the motor capacity may have to be changed. Please consult your Mitsubishi Electric representative for details if the number of passengers during peak time may equal or exceed the following numbers: S24" (S600): 525 persons per 10 minutes, S32" (S800): 765 persons or more per 10 minutes, S40" (S1000): 1050 persons per 10 minutes

*3: Please contact your Mitsubishi Electric representative for semi-outdoor and outdoor use. For outdoor use, please refer to "Cautions for outdoor use" on page 17.

*4: Please contact your Mitsubishi Electric representative for rises exceeding 22'-11 19/32" (7000mm).

### Sections of Balustrade

- Moving Handrail
- Deck Board (Outer Deck)
- Stainless steel handline
- Guard Rail
- Stainless steel handline
- Interior Panel
- Transparent tempered glass
- Deck Board (Inner Deck)
- Stainless steel handline
- Corner Deck
- Stainless steel handline

### Specifications

#### Division

- **Control system**
  - AC1
- **Safety features**
  - Stop-Buzzer Key Switch
  - Anti-Slip Floor Plate
  - Step with Anti-Slip Grooves
  - Demarcation Line
  - Stepped Demarcation Line
  - Step Demarcation Lighting
  - Horizontal Two Steps
  - Warning System on Moving Handrail Inlet (Inlet Sensor)
  - Directional Indicator on Handrail Inlet Cap (Handrail Inlet Cap LED Indicator)

#### Finish and decorative components

- **Floor Plate**
  - Decorative Panel (Embossed stainless steel)
  - Transparent tempered glass panel
  - Stainless steel hairline panel
  - Aluminum alloy Step Tread
  - Aluminum alloy Clean Rider
  - Yellow Demarcation Line

- **Handrail Inlet Cap**
  - Resin
  - Polyurethane
  - See page 10 for colors.

### Others

- MelEye
- Automatic oiler

### Notes

*1: Not applicable to outdoor use.

*2: Installed only on the right-side Handrail Inlet Cap (when seen from the boarding and landing areas).
The Series Z escalator is equipped with various safety devices that provide for safety and reliability.

1. **Emergency Stop Button (E-STOP)**
   A button to immediately stop the escalator in emergency situations.

2. **Step Up Thrust Device (CRS)**
   (Step Motion Safety Device)
   A safety device to stop the escalator when a Step has been dislocated on its riser side due to an object caught between the Steps, or between the Skirt Guard and the Step, or if an abnormality has been observed in the Step motion.

3. **Overload Detection Device**
   A safety device that stops the escalator if overload has been detected by abnormal current or temperature of the drive motor.

4. **Speed Governor/Reversal Stop Device (GOV)**
   A safety device that stops the escalator if the speed significantly decreases or increases to 120% of the rated speed.

5. **Electromagnetic Brake**
   A safety device that stops the escalator in the case of power failure, or if any safety device or the Emergency Stop Button has been activated.

6. **Broken Drive-Chain Device (DCS)**
   (Drive-Chain Safety Device)
   A safety device that stops the escalator if the Drive Chain breaks or stretches beyond an allowable limit.

7. **Handrail-Speed Monitoring Device (HSS)**
   (Handrail Speed Safety Device)
   A safety device that stops the escalator if the Moving Handrails fail to synchronize with the Steps due to slippage, loosening or breakage of the Moving Handrails.

8. **Step Level Device (SRS)**
   A safety device that stops the escalator if the horizontal level of a Step has dropped.

9. **Skirt Obstruction Device (SSS)**
   (Skirt Guard Safety Device)
   A safety device to stop the escalator if a shoe or other item becomes trapped in the gap between the Step and Skirt Guard.

10. **Comb-Step Impact Device**
    A safety device that stops the escalator if a horizontal or vertical movement of a Comb is detected due to an entrapped foreign object or the impact from external forces.

11. **Handrail Entry Device (HGS)**
    (Handrail Guard Safety Device)
    1) Inlet Guard
    A guard made of soft rubber, which fits over the outside of the Moving Handrail where it enters the Balustrade to keep fingers, hands or foreign objects away from the Moving Handrail opening.
    2) Inlet Guard Switch
    A safety device that stops escalator when physical contact is made with the inlet.

12. **Missing Step Device (SMS)**
    A safety device that stops the escalator if it detects a missing part of steps before it is visible to passengers.

13. **Broken Step-Chain Device (SCS)**
    (Step Chain Safety Device)
    A safety device that stops the escalator if the Step Chain breaks or stretches beyond an allowable limit.

14. **Handrail Entry Device (HGS)**
    (Handrail Guard Safety Device)
    1) Inlet Guard
    A guard made of soft rubber, which fits over the outside of the Moving Handrail where it enters the Balustrade to keep fingers, hands or foreign objects away from the Moving Handrail opening.
    2) Inlet Guard Switch
    A safety device that stops escalator when physical contact is made with the inlet.

15. **Handrail Entry Device (HGS)**
    (Handrail Guard Safety Device)
    1) Inlet Guard
    A guard made of soft rubber, which fits over the outside of the Moving Handrail where it enters the Balustrade to keep fingers, hands or foreign objects away from the Moving Handrail opening.
    2) Inlet Guard Switch
    A safety device that stops escalator when physical contact is made with the inlet.

16. **Handrail Entry Device (HGS)**
    (Handrail Guard Safety Device)
    1) Inlet Guard
    A guard made of soft rubber, which fits over the outside of the Moving Handrail where it enters the Balustrade to keep fingers, hands or foreign objects away from the Moving Handrail opening.
    2) Inlet Guard Switch
    A safety device that stops escalator when physical contact is made with the inlet.
Cautions for outdoor use

A roof must be provided over outdoor escalators. In rainy weather without a roof, passengers are in great danger of having their umbrellas blown away by the wind or falling down on the slippery steps. In hot weather, the Moving Handrails and Deck Boards can easily heat up in the sun to a dangerous temperature, and the responsibility for carrying them out lies with the building owners or general contractors.

1. How to define outdoor escalators
Outdoor escalators are defined as escalators exposed to environmental factors such as wind, rain, snow or direct sunlight, and they are classified into three categories: outdoor, semi-outdoor and indoor.

2. Environmental requirements for outdoor escalators

<table>
<thead>
<tr>
<th>Indoor</th>
<th>Semi-outdoor</th>
<th>Outdoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>70°</td>
<td>70° ≥ α ≥ 30°</td>
<td>α &lt; 70°</td>
</tr>
</tbody>
</table>

Angle α in the illustration varies depending on the direction in which the escalator is viewed. Check how the angle varies, take the smallest angle, apply it to the table above and determine the escalator type.

3. Architectural requirements for outdoor escalators

(1) Intermediate support beams must be provided.
(2) The level of the escalator Floor Plate must be higher than the floor finish of the building to minimize the chance of rain or cleaning water running into the escalator truss. Area B in the illustrations to the right must be at a slope of at least 10 degrees, and the surface of B must be horizontal to minimize the risk of passengers stumbling.
(3) Drainage must be provided in the entire area marked C and covered with grating to keep away drain water.
(4) The escalator pit must be waterproofed entirely when a whole truss is installed inside the pit. In addition, the upper pit floor must be sloped towards the lower floor, to let any water in the pit drain out and down.
(5) If there is a chance of the lower machine room getting flooded, drainage equipment, such as a drain pump, must be provided to discharge any water.
(6) Water in the lower pit must contain lubrication oil, so a grease trap should be provided to separate the lubrication oil from the water. The capacity of the grease trap is determined according to the escalator size and maximum amount of expected rainfall.
(7) Water may drip from the exterior panels of the escalator. Take waterproofing measures for equipment under the exterior panels if water is likely to cause problems or accidents.

Notes on building work

- Tolerance in distance between supporting beams: +30mm to 0 or 13/32" to 0""
- Flooring around the escalator must not be finished until the escalator is installed.
- Flooring overall or 12" of the escalator Floor Plate must not be finished until the Floor Plates are in place. Sprinkler pipes or wiring for soffit lights, or any other electric conduits for items other than escalator, must not be laid inside the truss.
- No walls or other parts of the building structure must be supported on the truss.
- Any electric conduits or other items other than escalator, must not be laid inside the truss.
- Maximum allowed weight of outer sheathing: 20kg/m² or 0.028 psi

Ordering information

Please submit the following information when ordering or requesting escalator quotations:

- Name and address of the building
- Escalator model (ZS or ZP)
- Escalator type (S24" (S600) or S32" (S800) or S40" (S1000)
- Rise (floor height) and number of floors
- Number of escalators
- Voltage and frequency of the power source for escalator’s main drive and lighting
- Optional items required
- Whether or not fire-prevention shutters are required