

Safety devices

The Series Z escalator is equipped with various safety devices that provide for safety and reliability.

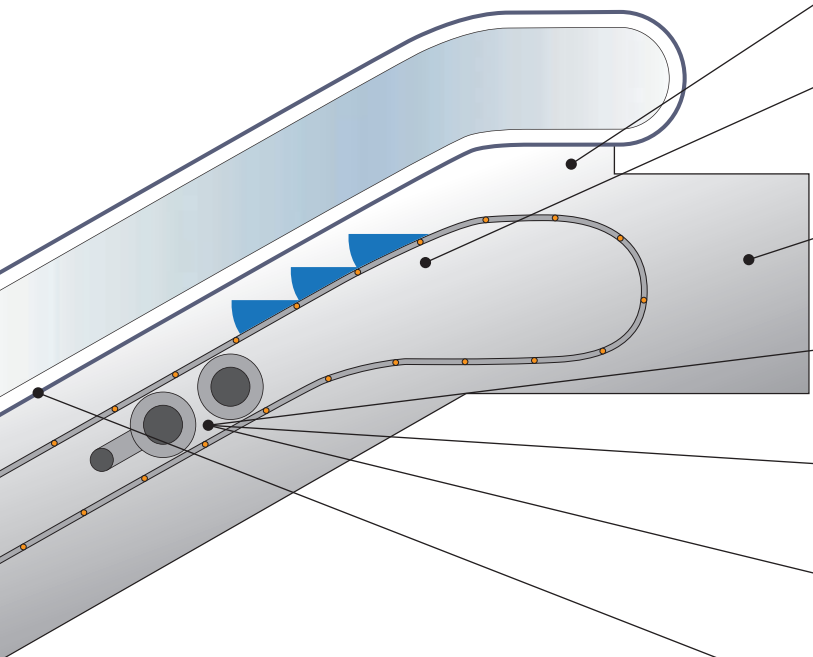
For Japan Code



For High Rise

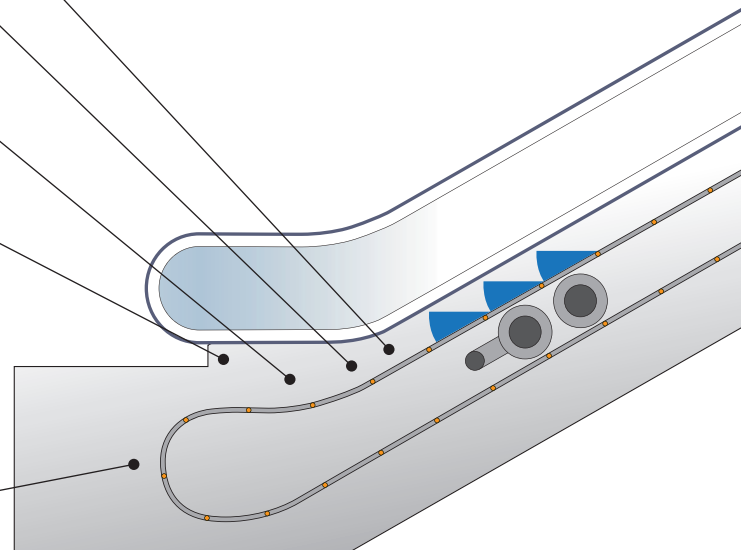
Rise (mm): 7001 - 13000

●...Standard ○...Optional



- **Emergency Stop Button (E-STOP)**
A button to immediately stop the escalator in emergency situations.
- **Step Motion Safety Device (CRS)**
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.
- **Overload Detection Device**
A safety device that stops the escalator if overload has been detected by abnormal current or temperature of the drive motor.
- **Drive Chain Safety Device (DCS)**
A safety device that stops the escalator if the Drive Chain breaks or stretches beyond an allowable limit.
- **Speed Governor (GOV)**
A safety device that stops the escalator if the speed significantly decreases or increases to 120% of the rated speed.
- **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.
- **Handrail Speed Safety Device (HSS)**
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.

- **Step Level Device (SRS)**
A safety device that stops the escalator if the horizontal level of a Step has dropped.
- **Skirt Guard Safety Device (SSS)**
A safety device to stop the escalator if a shoe or other item becomes trapped in the gap between the Step and Skirt Guard.
- **Comb-Step Safety Switch (CSS)**
A safety device that stops the escalator if a foreign object becomes trapped in the gap between the Step and Comb.
- **Handrail Guard Safety Device (HGS)**
 - 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.
- **Step Link Safety Device (SLS)**
A safety device that stops the escalator if the Step Link breaks or stretches beyond an allowable limit.



Basic specifications

| Item | S600 | S1000 |
|-----------------------------------|--|-------|
| Models | ZS / ZL*1 / ZP | |
| Codes | Japan | |
| Power supply | AC 3-phase, 50 or 60Hz | |
| Lighting power supply | AC single-phase, 50 or 60Hz | |
| Rated speed | 0.5m/sec | |
| Control system | Standard: AC1 Option: VVVF | |
| Transport capacity*2 (persons/hr) | 4500 | 9000 |
| Inclination | 30° | |
| Environment | Standard: Indoor Option: Semi-outdoor / Outdoor *3 | |
| Automatic oiler | Standard: None Option: Available | |
| Min. rise (mm) | 7001 | |
| Max. rise (mm) | ZS / ZP: 13000 ZL: 9000 *4 | |
| Step width (mm) | 604 | 1004 |
| Escalator width (mm) | 1150 | 1550 |
| Between Moving Handrails (mm) | 840 | 1240 |
| Between Skirt Guards (mm) | 610 | 1010 |
| Truss width (mm) | 1100 | 1500 |
| Floor opening (mm) | 1250 | 1650 |

*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 local Mitsubishi Electric sales agent for details if the number of passengers during peak time may equal or exceed the following numbers:

S600: 500 persons per 10 minutes
S1000: 1000 persons per 10 minutes

*3: Please contact your local Mitsubishi Electric sales agent for semi-outdoor and outdoor use. For outdoor use, please refer to "Cautions for outdoor use" on page 13.

*4: Please contact your local Mitsubishi Electric sales agent for rise ranging from 7428mm to 9000mm.

Dimensions

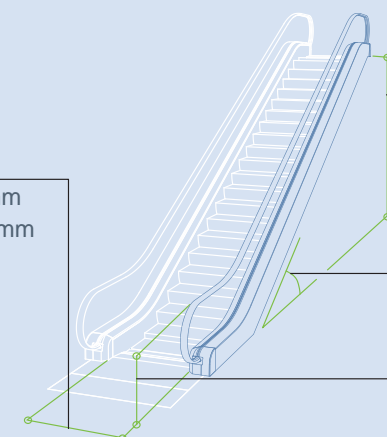
Step width

Type S600 : 604mm
Type S1000 : 1004mm

Rise
Models ZS/ZP : max 13000mm
Model ZL : max 9000mm

Inclination
30°

Moving Handrail height
950mm or 1000mm (Option)



●...Standard ○...Optional N/A...Not applicable

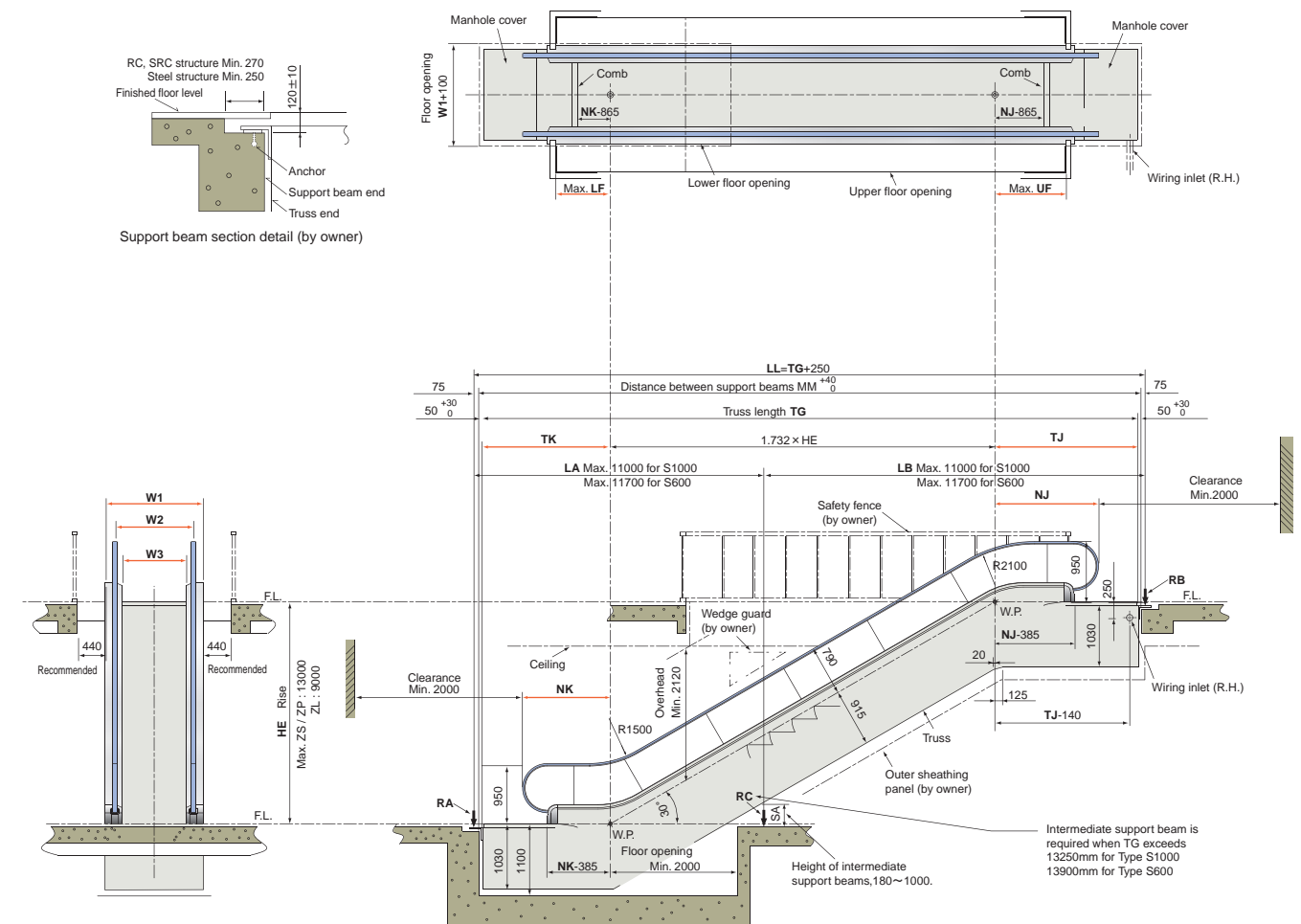
| Division | Specification | Specification | | | |
|---------------------------|--|---|------|-----|-----|
| | | ZS | ZL*1 | ZP | |
| Control system | AC1 | ● | | | |
| | Inverter (VVVF) | | ○ | | |
| | Automatic Operation with Posts (Stationary in stand-by, AC1) | | ○ | | |
| | Automatic Operation with Posts (Slow operation in stand-by, Inverter) | | ○ | | |
| | Post-Free Automatic Operation (Slow operation in stand-by, Inverter) | | ○ | | |
| Safety features | Stop-Buzzer Key Switch | ● | | | |
| | Anti-Slip Floor Plate | ● | | | |
| | Step with Anti-Slip Grooves | ● | | | |
| | Demarcation Line | ● | | | |
| | Stepped Demarcation Line | ● | | | |
| | Step Demarcation Lighting | ○ | | | |
| | Comb Light | ○ | | | |
| | Three Horizontal Steps | ○ | | | |
| | Warning System on Moving Handrail Inlet (Inlet Sensor) | | ○*2 | | |
| | Warning System on Outer Deck (Outer Deck Sensor) | | ○*2 | N/A | |
| | Directional Indicator on Handrail Inlet Cap (Handrail Inlet Cap LED Indicator) | | ○*2 | *3 | |
| | Directional Indicator at Comb level (Comb-Side LED Indicator) | | ○*2 | *4 | |
| | Finish and decorative components | Balustrade | ● | | N/A |
| See page 12 for sections. | | Transparent tempered glass panel | | ● | N/A |
| | | Under-Handrail Lighting | N/A | ● | N/A |
| Skirt Guard | | Stainless steel hairline | | ● | |
| | | Fluoropolymer Coating | | ○ | |
| Deck Board | | Stainless steel hairline | | ● | |
| | | Fluoropolymer Coating | | ○ | |
| Step | | Aluminum alloy Step Tread | | ● | |
| | | Aluminum alloy Cleat Riser | | ● | |
| Floor Plate | | Yellow Demarcation Line | | ● | |
| | | Decorative Panel (Embossed stainless steel) | | ● | |
| | | Floor Numbers | | ○ | |
| | | Comb | | ● | |
| | | Extension of Floor Plate | | ○ | |
| | Connection of adjacent Floor Plates | | ○ | | |
| Moving Handrail | Rubber | | ● | | |
| Handrail Inlet Cap | Resin | | ● | | |
| Others | MelEye | | ○ | | |
| | Automatic oiler | | ○ | | |

*1: Not applicable to semi-outdoor and outdoor use.
 *2: Not applicable to outdoor use.
 *3: Installed only on the right-side Handrail Inlet Cap (when viewed from the boarding and landing areas).
 Combination with a Comb-Side LED Indicator is not applicable.
 *4: Combination with a Comb Light is not applicable.



Escalators in the graphics are based on the Japan Code, with optional Fluoropolymer Coating on Skirt Guard.

(Dimension: mm)



Please contact your local Mitsubishi Electric sales agent for:
 - VVVF control (Please note that TJ may increase from that shown.)
 - Reaction force, RA, RB, RC etc.

■ Standard dimensions

| Type | S600 | S1000 |
|-------------------------------|------|-------|
| W1 (Escalator Width) | 1150 | 1550 |
| W2 (Between Moving Handrails) | 840 | 1240 |
| W3 (Between Skirt Guards) | 610 | 1010 |

| Horizontal Steps | LF | UF | NK | NJ | TK | TJ |
|---------------------|------|------|------|------|------|------|
| 1.5 Steps(Nominal)* | 850 | 1100 | 1385 | 1635 | 2015 | 2265 |
| 3 Steps | 1440 | 1725 | 1975 | 2260 | 2605 | 2890 |

*Please contact your local Mitsubishi Electric sales agent for the actual number of steps.