FUJITEC

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ZEX160650AS

FUJITEC

ZEXIA

Small-Machine-Room Elevator

"Made in Fujitec"

Fujitec is Creating and Leading the New Global Standard for Elevators.

By manufacturing safe and reliable elevators in-house, we are building trust with people around the world.

Fujitec's "Global Common Components" are used in the ZEXIA brand. The quality of components, such as traction machines, elevator controllers, and operating fixtures, is controlled through Fujitec's integrated system of global quality management. Elevators with the same high quality will be provided by Fujitec's global supply chain under the concept of "Made in Fujitec."

Excellent Performance

The permanent magnetic synchronous gearless motors, which have been designed and developed by Fujitec, provide the utmost reliability and excellent driving performance. These motors reflect 68 years of accumulated know-how through our technological achievements in elevator manufacturing, which spans from product designing to fabrication.

Reliable Operation

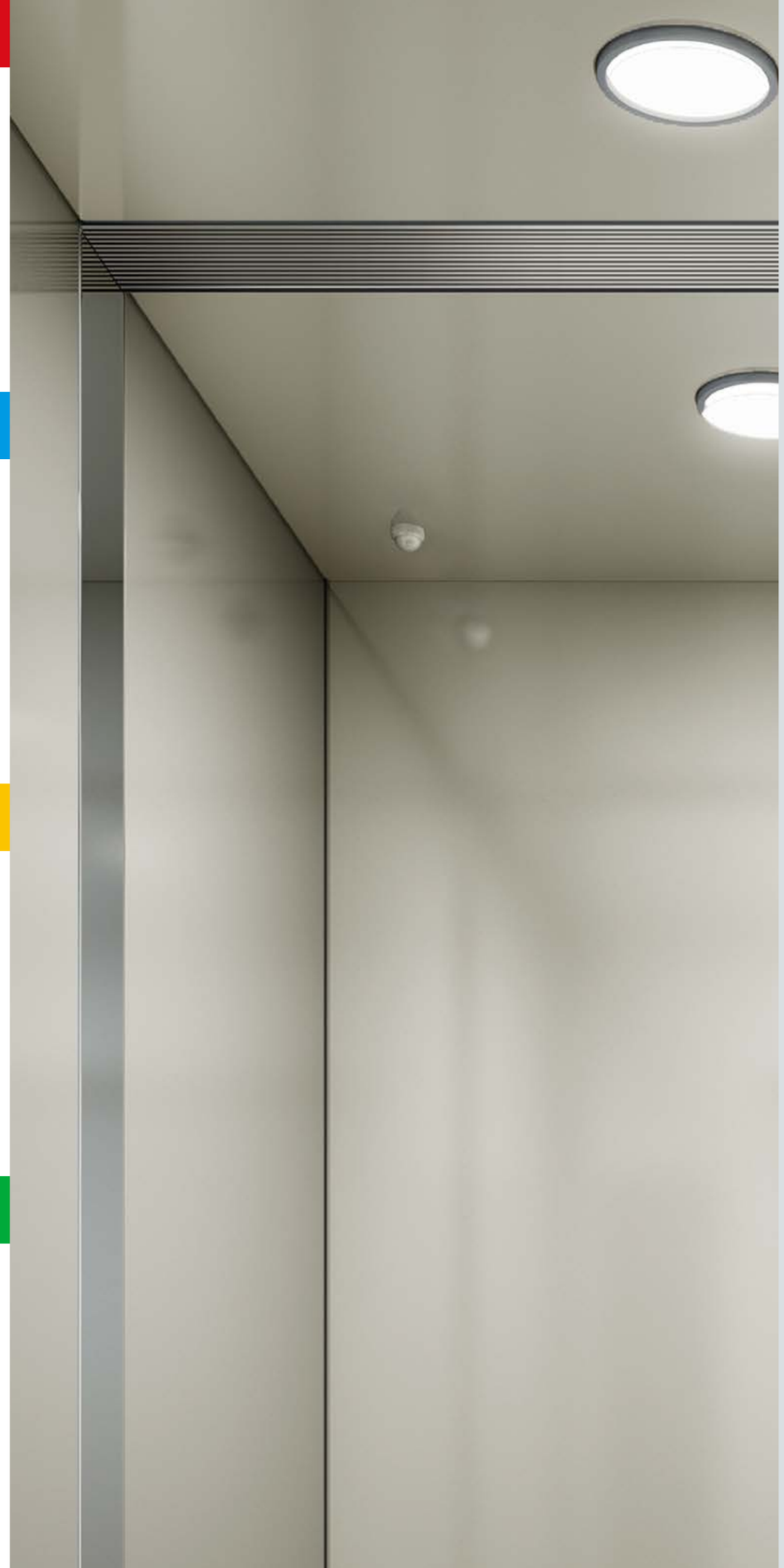
Since all control-related components, ranging from control circuits to inverters, were independently developed by Fujitec, highly reliable elevator operation is established. In the event of an elevator malfunction, the elevator control system assembled with our components immediately detects the malfunction and maintains efficient and stable operation.

Universal Design

Under our universal designs, aesthetically refined buttons, displays, etc. on elevator operating fixtures are highly visible. Passengers will have a superb and comfortable riding experience.

Styles

Various decoration styles for the elevator interior and landing floors are offered by Fujitec. Customers can select the most suitable decorative materials for car panels, car ceilings, car floorings, car operating boards, and landing fixtures.



ZEXIA

Small-Machine-Room Elevator

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Excellent Performance

Gearless Traction Machine with Permanent Magnetic Synchronous Motor

The gearless traction machines with a permanent magnet synchronous motor assure high riding comfort quality and low power consumption. This newly adopted technology reduces the weight and size of a traction machine, because gears are no longer required for elevator speed control.

A Small Machine Results in Space Saving

The machine room space required by our ZEXIA elevators is 60 % smaller than that of conventional elevators. This remarkable feature results in a reduction of building construction costs and increases usable space in the building.

In addition, ZEXIA's small machines require less motor capacity and power consumption compared to conventional elevators. The differences are shown below.

Given elevator operating conditions:
1) The maximum number of elevator operations per day: 600 times
2) The travel distance in a single operation: 30 meters
3) The rated speed: 1.0 meter per second
4) The rated load: 1200 kgs.

ZEXIA Elevator (PMGL)

Conventional Elevator (ACGD)

Required Motor Capacity

8.5 kW

9.0 kW

Electrical Usage per Month*1

646 kW / month*2 ⟷ 22% Energy Saving

827 kW / month

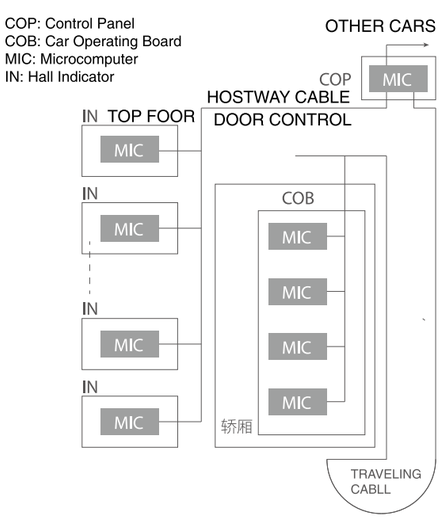
*1 : The number of days in a single month is assumed as 30 days.
*2 : Electrical usage might vary depending on site conditions.

Ultra-Slim Door Operator with Permanent Magnetic Synchronous Motor

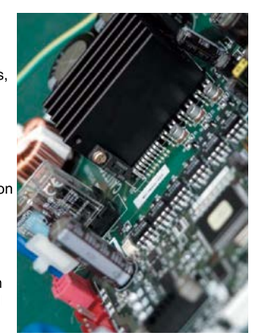
Fujitec's new door operators have adopted a permanent magnetic synchronous motor which doesn't have any gears for door speed control. The use of this motor reduces the size of a door operator and achieves smooth and precise door operation.

These new door operators consume approximately 35 % less power than conventional ones.

Distributed Control System



- A 32-bit data bus provides high-speed and high-precision data transmission of input-output command signals between each microprocessor located in control panels, hall-call / car-call buttons, hall indicators and hall lanterns.
- High-speed data transfer with multiple protocols enables large-scale data processing at ten times the normal speed. This also improves the ability to monitor elevator running speed, landing precision and operating reliability as well as input-output command signals of car operating fixtures and operation indicators.
- The bus system is employed for data transmission between microcomputers located in every hall-call fixture, car operating board, and control panel. This bus system has strong protection against signal interference and has system-extending capability.



An elevator operation system with multiple microcomputers makes maximum use of a "Distributed Control System." Hall indicators, car operating boards, and control panels incorporate high-performance microcomputers. These independent microcomputers analyze elevator operating conditions utilizing self-diagnostic functions and implement immediate control of elevator operations. Also, data transmission buses between microcomputers increase data processing capability.

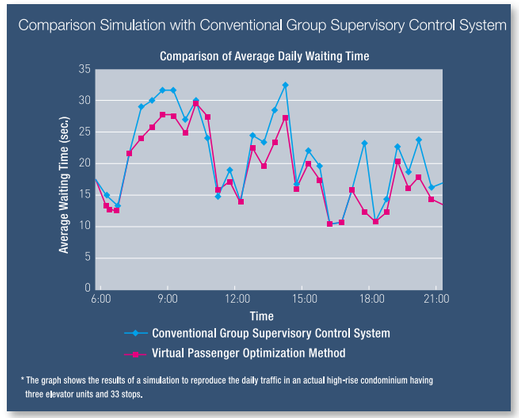
Reliable Operation

Unintended Car Movement Protection (UCMP)

A safety-purpose control circuit independent of the elevator operating system detects unintended movement of a car and prevents the car from moving from the floor with its doors open. This function increases passenger safety.

FLEX-NX series *-Elevator Group Supervisory Control System-*

Fujitec has adopted the "Virtual Passenger Optimization Method" as a new elevator group control system. This system controls elevator group operation by virtually calculating passenger waiting time in advance based on past accumulated data, such as passenger travel patterns and passenger volume at each floor. Also, this method comprehensively calculates passenger waiting time based on extrapolated data of probable future passengers, how many passengers will come to a certain floor when a hall call is registered and/or how many passengers will come to a certain floor when no hall call is registered. This comprehensive analysis reflects whole building traffic conditions for efficient elevator operation control as well as reducing daily passenger waiting time by up to 10 %.



EZSHUTTLE *- Destination Floor Guidance System -*

In an elevator operating system with EZSHUTTLE, passengers are required to register their destinations at the elevator floors rather than conventionally registering them inside the elevator. The EZSHUTTLE system then guides passengers to their assigned elevators, which will have been selected to minimize the number of destination stops based on the registered destinations.

This passenger guidance and elevator assignment provides passengers with uncongested elevator service and a reduction in passenger riding time by 50% at peak travel periods.

* Based on comparisons of passenger riding time obtained under a conventional elevator operating system and that under a simulated EZSHUTTLE-equipped elevator operating system.

Universal Design

Fujitec's new global-standard operating fixtures reflect the latest in Human Engineering technology. Fixture buttons with clearly visible lettering function as the man-machine interface. Passengers can register their destination in a visually intuitive manner.

Newly Adopted Lettering	Former Standard Lettering
23569	23569

The newly adopted lettering for the operating fixture buttons is highly visible at wider angles than the former one. The lettering is highly visible, so that passengers anywhere under any lighting conditions in the car can see and easily read the letters and the numbers.
Fujitec' s uniquely designed operating fixtures function as a friendly interface between the passengers and the elevators.

The eye-catching green door open button can prevent passengers from mistaking the door open button for other buttons.

The emergency call button is located about 900 mm from floor level allowing children and physically impaired persons to use in case of emergency.

Night-Time Self-Checking Operation

- A safety enhancement for increased reliability -

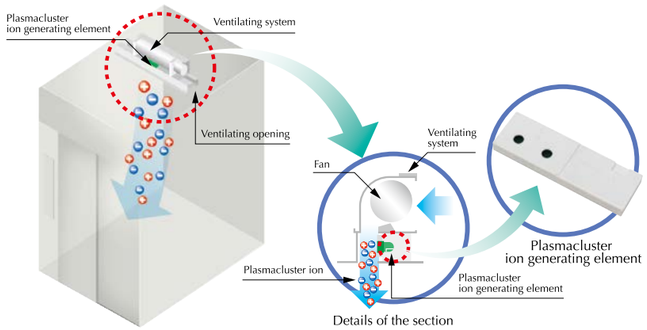
Mechanical brake conditions are automatically checked by moving the elevator during the night time while not receiving any car and hall calls. This night-time self-checking operation increases passenger safety and contributes to a high after-sales product quality.

IONFUL

- Plasmacluster™* Ion Generating Device -

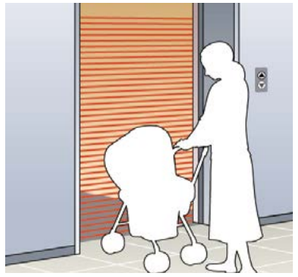
Plasmacluster is a trademark of sharp Coporation

Fujitec is the first elevator company to have installed a Plasmacluster Ion generating device in an elevator. This device built in a car's ventilation unit disinfects airborne mold, bacteria, viruses, allergens, and odor molecules as well as creating clean air in the elevator which enhances passenger comfort.



Multi-Beam Sensor

Multi-beam Sensor emits multiple infrared beams, creating an invisible curtain covering the entire doorway. If any of the beams is interrupted, the closing doors will stop and reopen.
This function results in a significantly higher detection rate of a passenger and/or an object in the doorway.



LED DownLights on Car Ceiling

For car ceiling lighting, Fujitec adopts LED downlights, which are long-lasting and energy-efficient. This adoption contributes to the protection of the environment.

	Filament Light Bulb	LED Light Bulb	Improvement Results
Lifetime	**approx. 1,500 hours**	**approx. 20,000 hours**	**approx. 13 times**
Wattage	**90W**	**9W**	**1/10 (one-tenth)**

VONIC (Automatic Voice Announcement System)

(Optional Specification)

A computerized voice system (English) provides passengers with timely information about car directions, car arrivals, door opening and closing, and emergencies, etc.
[At the customer's request, announcements in other languages can be added.]

STYLES

Ceiling Design

Standard **Optional**

CE-g1

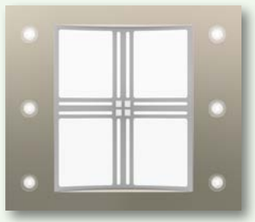
Flat Panel:
Steel Sheet with Color Paint

Light :
LED (White)

CE-g5

Flat Panel:
Steel Sheet with Color Paint

Light :
Downlight (10W, LED)
Emergency Light(1W,LED)

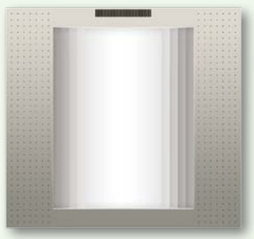


CE-c1

Arch-Shaped Part:
Milky-White Acrylic Sheet

Flat Part:
Steel Sheet with Color Paint

Light:
LED+ Downlight(3W, LED)
Emergency Light(5W,LED)



CE-c2

Arch-Shaped Part:
Milky-White Acrylic Sheet

Flat Part:
Steel Sheet with Color Paint

Light:
LED+ Downlight(3W, LED)
Emergency Light(5W,LED)

CE-c4

Arch-Shaped Part:
Milky-White Acrylic Sheet with the Crossed Triple Beam

Stripe-Pattern Part:
Steel Sheet with Color Paint

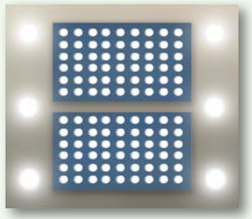
Light:
LED (White)
Emergency Light(5W,LED)

CE-c5

Arch-Shaped Part:
Milky-White Acrylic Sheet with the Two Parallel Triple Beam

Flat Part:
Steel Sheet with Color Paint

Light:
LED (White)
Emergency Light(5W,LED)

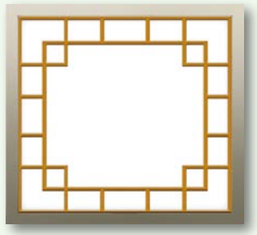


CE-c6

Flat Part:
Milky-White Acrylic Sheet

Flat Panel:
Steel Sheet with Color Paint

Light:
LED (White)
Emergency Light(5W,LED)



CE-c7

Flat Part:
Milky-White Acrylic Sheet

Flat Panel:
Steel Sheet with Color Paint

Light:
LED (White)
Emergency Light(5W,LED)

Note: Ceiling internal height will vary based on the ceiling types.

Standard Car Design

看得见的精彩，更出色的生活

Ceiling:
CE-g1
Paint Finished Steel Sheet
(TE-a7)

Walls,Transom &door:
Paint Finished Steel Sheet
(TE-a7)

Fan:
Cross-Flow Fan with IONFUL

Car Operating Board:
(FX-h1) Stainless Steel with Hairline

Floor: BD-b2

Sill: Stainless Steel

Clear Ceiling Height: 2350mm
Car Panel Height: 2350mm

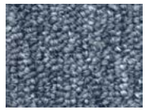
CE-g1

The ceiling will be designed by 3 pieces flat plate for deep car with 1350kg and above.

Car Floor (Option)
(PVC Tiles)

BD-b1

BD-b2



BD-b3

BD-b4

BD-b5

BD-b6

BD-b7

BD-b8

Ceiling: (CE-c4)	Metal Paint (TE-f1)
Walls,Transom &door:	Stainless Steel with Hairline Finish
Fan:	Cross-Flow Fan with IONFUL
Floor:	BD-b5
Sill:	Stainless Steel
Clear Ceiling Height:	2350mm
Car Panel Height:	2500mm

Ceiling: (CE-c7)	Metal Paint (TE-f1)
Walls,Transom &door:	Stainless Steel with Hairline Finish
Mirror:	Stainless Steel with Mirror Finish
Fan:	Cross-Flow Fan with IONFUL
Handrail:	CPH-313F
Floor:	Designed PVC
Sill:	Stainless Steel
Clear Ceiling Height:	2350mm
Car Panel Height:	2500mm

Ceiling: (CE-g5)	Black-Titanium-Coated Stainless Steel with Mirror Finish
Walls,Transom &door:	Steel Panel with Laminate Sheet (W-205)
Mirror:	Stainless Steel with Mirror Finish
Fan:	Cross-Flow Fan with IONFUL
Floor:	Designed PVC
Sill:	Stainless Steel
Clear Ceiling Height:	2350mm
Car Panel Height:	2350mm

Ceiling: (CE-g5)	Paint Finished Steel Sheet (TE-b2)
Walls,Transom &door:	Paint Finished Steel Sheet (TE-b2)
Wall's Center Panels:	Paint Finished Steel Sheet (TE-f2)
Fan:	Cross-Flow Fan with IONFUL
Floor:	BD-b2
Sill:	Stainless Steel
Clear Ceiling Height:	2350mm
Car Panel Height:	2350mm

* Overhead dimension shall increase 150mm for above car design.

FX-g1

Faceplate:
Acrylic Resin

Indicator:
Orange Dot-Matrix LED

Buttons:
Push Buttons

FX-g11

Faceplate:
Acrylic Resin

Indicator:
Multicolor LCD Screen(5.7 inch)

Buttons:
Push Buttons

FX-c1

Faceplate:
Stainless Steel with Hairline Finish

Indicator:
Orange Dot-Matrix LED

Buttons:
Push Buttons

FX-b1

Faceplate:
Stainless Steel with Mirror and Sandblast Finish

Indicator:
Orange Dot-Matrix LED

Buttons:
Push Buttons

FX-b11

Faceplate:
Stainless Steel with Mirror and Sandblast Finish

Indicator:
Multicolor LCD Screen(5.7 inch)

Buttons:
Push Buttons

FX-h1

Faceplate:
Stainless Steel with Hairline Finish

Indicator:
Orange Dot-Matrix LED

Buttons:
Push buttons

FX-h11

Faceplate:
Stainless Steel with Hairline Finish

Indicator:
Multicolor LCD Screen (7 inch)

Buttons:
Push buttons

FX-k1

Faceplate:
Stainless Steel with Hairline Finish

Indicator:
Orange Dot-Matrix LED

Buttons:
Push buttons

FX-k11

Faceplate:
Stainless Steel with Hairline Finish

Indicator:
Multicolor LCD Screen (7 inch)

Buttons:
Push buttons

FX-k12

Faceplate:
Stainless Steel with Hairline Finish

Indicator:
Multicolor LCD Screen (10.4 inch)

Buttons:
Push buttons

Car Operating Boards

FX-g3

Faceplate:	Acrylic Resin
Buttons:	Push Buttons

FX-g31

Faceplate:	Acrylic Resin and Stainless Steel with Hairline Finish
Buttons:	Push Buttons

FX-g4

Faceplate: Acrylic Resin
Indicator: Orange Dot-Matrix LED
Buttons: Push Buttons

FX-g5

FX-g6

FX-g7

FX-g8

Note: Key Switch is Optional.

Button

CP-C1

Type:	Resin Button (White)
When Pressed:	Light Emitting Parts: Ring
Lighting Color:	Orange

CP-C3

Type:	Resin Button (White) with Braille Dots
When Pressed:	Light Emitting Parts: Ring
Lighting Color:	Orange

CP-C2

Type:	Resin Button (Black)
When Pressed:	Light Emitting Parts: Ring
Lighting Color:	Orange

CP-D1

Type:	Stainless Steel Button
When Pressed:	Light Emitting Parts: Ring
Lighting Color:	Orange

CP-D3

Type:	Stainless Steel Button with Braille Dots
When Pressed:	Light Emitting Parts: Ring
Lighting Color:	Orange

FX-c4

Faceplate: Stainless Steel with Hairline Finish
Indicator: Orange Dot-Matrix LED
Buttons: Push Buttons

FX-c5

FX-c6

FX-c7

FX-c71

Hall Fixtures

FX-b4

Faceplate:
Stainless Steel with Mirror and Sandblast Finish

Indicator:
Orange Dot-Matrix LED

Buttons:
Push Buttons

FX-b5

FX-b6

FX-b7

FX-b8

FX-b71

Car Operating Boards

FX-h4

FX-h41

FX-h5

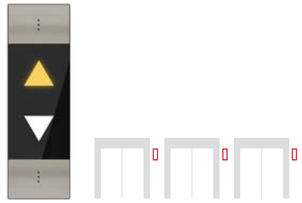
FX-h51

FX-h6

FX-h7

FX-h71

FX-h8



Faceplate:
Stainless Steel with Hairline Finish/Acrylic Resin

Indicator:
Orange Dot-Matrix LED
Multicolor LCD Screen (4.2 inch)

Buttons:
Push buttons

FX-k4

FX-k41

FX-k5

FX-k51

FX-k6

FX-k7

FX-k71

Faceplate:
Stainless Steel with Hairline Finish/Acrylic Resin

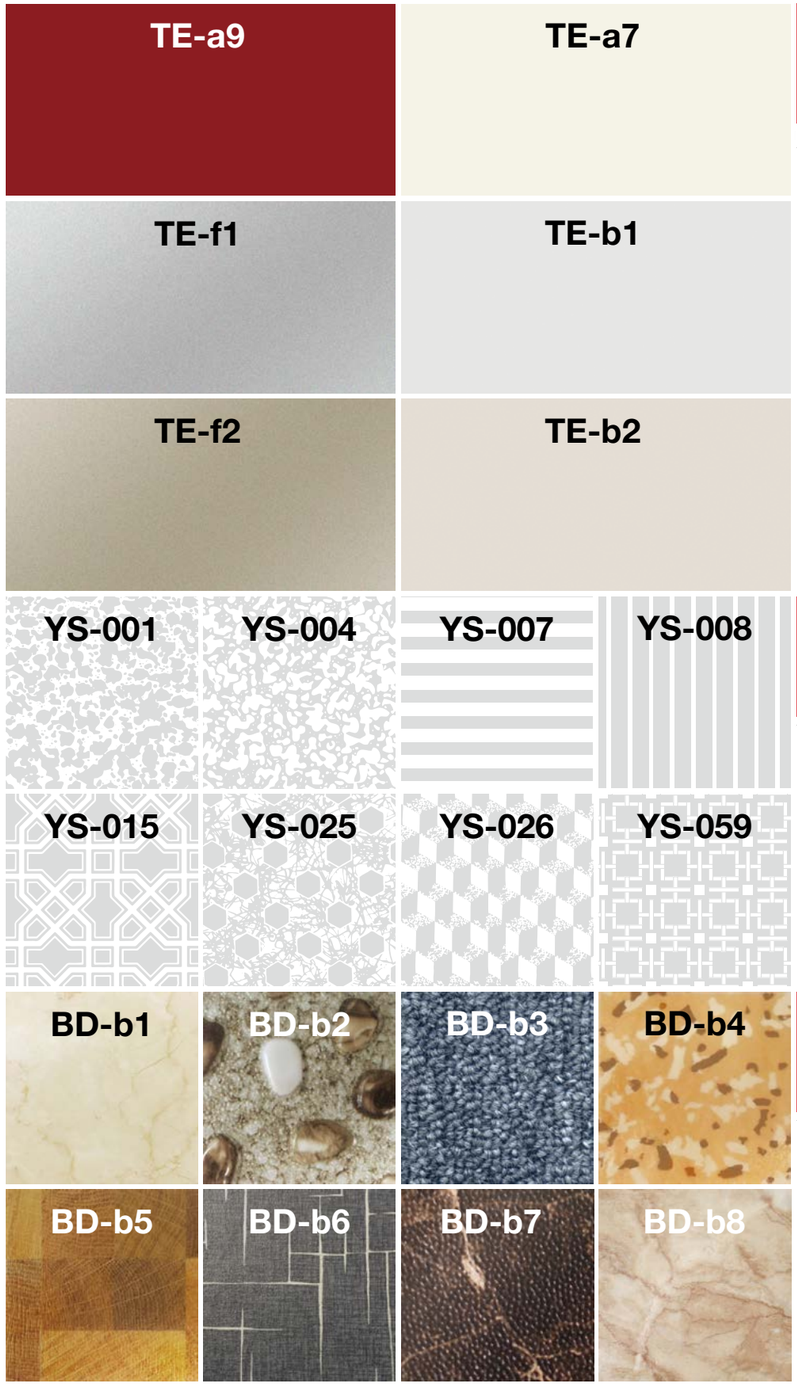
Indicator:
Orange Dot-Matrix LED
Multicolor LCD Screen (4.2 inch)

Buttons:
Push buttons

1 Car

2 Cars

Group Supervisory Control



Ceilings, Car Panels, Car Doors, Landing Doors, and Jambs: Paint

Note: The colors of TE-f1 and TE-f2 are optional.
*Actual colors may differ from the images.

Car Panels, Car Doors, and Landing Doors: Stainless Steel with Etching

*The dimensions of an actual pattern differ from the images.

Car Floor (Vinyl Tile)

*The scale and color of an actual design differs from the images.

Systems & Functions

ZEXIA

Main Specifications

Capacity

630, 800, 1050, 1200, 1350, 1600, 1800, and 2000 kgs

Speed

1.0, 1.5, 1.75, 2.0, 2.5, and 3.0mps

(2.5mps-3.0mps is not available for elevators of 630kg capacity. 3.0 mps is not available for elevators of 800kg and 2000kg capacity.)

Number of Served Floors

40 Stops or Less

Travel Height

For the speed of 1.0, 1.5, or 1.75 mps: 110 m or less

For the speed of 2.0 or 2.5 or 3.0mps: 140m or less

Control Method

VVVF controlled by distributed 32-bit Microcomputers.

Traction Machine

Gearless Machine with Permanent Magnetic Synchronous Motor

Types of Elevator Operation

1-Car or 2-Car Selective Collective Operation or Group Control Operation for 3 to 8 Cars in a Bank

Door Operation System

Permanent Magnetic Gearless Motor controlled by VVVF

Door Opening Type

2-Panel Center Opening

(The elevators of 450-kg load capacity are equipped with 2-panel side opening doors as standard.)

The above specifications may change without prior notice.

1. Elevator Operation Control System

Control Systems	Details of the Systems
For One Elevator: 1-Car Selective Collective Operation (Simplex)	Landing calls in the direction in which the elevator is traveling are served sequentially. After all the landing calls are served, landing calls in the opposite direction will be served. When there are no incoming calls, the elevator stops and stays at the last served floor.
For Two Elevators in a Bank: 2-Car Selective Collective Operation (Duplex)	Two selective-collective-operation elevators work together in one group. Landing calls are served by either elevator that can respond first. When there are no calls, one will be on standby at the main floor; the other will stay at the last served floor.
For Three to Eight Elevators in a Bank (Group Control Operation)	The operation of more than two elevators in a bank is controlled by a group supervisory system which calculates passenger waiting time in advance based on the accumulated traffic data, such as passenger travel patterns and passenger volume at each floor, etc.

2. Functions and Specific-Purpose Operations, etc.

Functions and Specific-Purpose Operations, etc.		Details	● : Standard	■ : Optional
Passenger-Safety Functions	Alarm Buzzer	When the emergency button is pressed, the car-top-mounted buzzer will sound an alarm.	●	
	Rescue Operation to Nearest Floor	In the event that an elevator stops between floors, a safety circuit will automatically analyze the situation and slowly move the elevator to the nearest available floor.	●	
	Automatic Releveling	In the event that an elevator floor isn't leveled with the landing floor, the Automatic Releveling function will initiate and make the elevator floor flush with the landing floor.	●	
	Emergency Car Lighting	In the event of a power failure, a self-charging-battery-equipped emergency lighting system will light up the elevator for passenger safety and relief.	●	
	Five-Way Intercom	An intercom for 5-way communication is installed in the elevator. It allows 4 remote telephones to communicate with the elevator; one on the car top, one in the pit, one in the machine room and one in the building-system control room.	●	
	Multi-Beam Sensor	A multi-beam sensor emits multiple infrared beams covering the entire doorway. If a single beam is interrupted, the sensor will stop the closing doors and reopen them.	●	
	Multi-Beam Sensor with Mechanical Safety Edge	A multiple-beam sensor can be incorporated in mechanical safety edges of elevator doors.		■
	Night-Time Self-Checking Operation	During the night time when the elevator doesn't receive any car and hall calls, the system will move the elevator and check the mechanical brake conditions automatically.	●	
	Open Door Warning	If a passenger tries to forcibly open the doors while the elevator is in operation, the warning device will sound an alarm.	●	
	Unintended Car Movement Protection (UCMP)	The Unintended Car Movement Protection system prevents elevator movement from the landing floor, while passengers are entering and getting off the elevator.	●	

The above functions may change without prior notice.

Systems & Functions

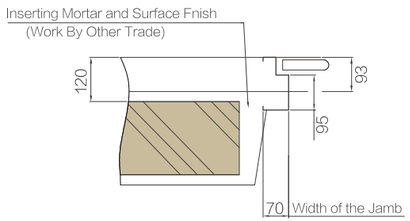
Functions and Specific-Purpose Operations, etc.		Details	●: Standard /	■: Optional
Efficient-Operation Functions	Anti-Nuisance Function	1) For elevators with three or more landings, when three or more car calls are registered at the same time, or when four or more car calls are registered in an extremely short period of time, the system will automatically cancel the activated car calls. 2) For elevators with five or more landings, when an elevator loaded with 100 kg or less receives four or more car call registrations, the system will cancel all the activated registrations.	●	
	Auto Adjustment of Door Open Time	This function automatically adjusts the door-hold open time (dwell time) at each floor depending on passengers' hall- and car- call registration situations.	●	
	Automatic Return to Main Floor (for 2-Car & Group Control Operation)	When an elevator does not receive any car- or hall- calls for a certain period of time, the Automatic Return to Main Floor function makes the elevator go to the lobby or a predetermined floor and waits in standby for passengers to board.		
	Door Nudging	If the car doors are held open over a given period of time, the Door Nudging function will close them slowly with an audible alarm.	●	
	Auto-Separation after Elevator Failure (for Group Control Operation)	When an elevator under group control operation fails to operate normally, it will be separated from the elevator group so as not to affect the overall group elevator performance.		■
	Load Bypass (for 2-Car & Group Control Operation)	When a traveling car is fully loaded, it will bypass floors where hall calls are registered. Those hall calls will be assigned to another available elevator.		■
	Overload Warning	When a car becomes overloaded, the warning alarm will sound. The elevator doors will not close until the overloaded state is resolved.	●	
	Reverse-Direction Car-Call Cancellation	In the event that a passenger tries to register a car call that is behind the car's current travelling direction, the elevator system will regard it as a nuisance call and ignore it in order to maintain the elevator service efficiency.	●	
	Wrong Car-Call Register Cancellation	In case a passenger presses the wrong car call button, this mistake can be cancelled by pushing the same button twice.	●	
Passenger-Comfort Functions	Arrival Chime (In Car)	When a car arrives at a destination floor, an arrival chime will sound softly.		■
	Attendant Operation	By using attendant-operation buttons inside a car operating board's cabinet, authorized personnel can register car calls for in-car passengers. In addition to monitoring incoming hall calls, the attendant decides the car travel direction and operates the car doors with priority service for in-car passengers.	●	
	Automatic Voice Announcement System (VONIC)	A computerized voice system provides passengers with timely information about car directions, car arrivals, door opening and closing, and emergencies, etc. At the customer's request, announcements in other languages can be added.		■
	Plasmacluster™ Ion Generating Device (IONFUL)	Plasmacluster Ion Generating Device to be built into a car's ventilation unit creates clean air for passenger comfort by disinfecting germs, odor molecules, bacteria, viruses, and allergens in the elevator.	●	
	Visual Display on Car Operating Board	Informing on an elevator's current condition, a visual display on the car operating board will provide passengers with timely text messages such as "OVERLOADED", "EMER. OPERATION", "PLEASE EXIT THE ELEVATOR." etc,	●	
	Visual Display on Landing Fixture	Informing on an elevator's current condition, a visual display on the landing fixture will provide waiting passengers with timely text messages such as "OVERLOADED", "EMER. OPERATION", etc.		■

The above functions may change without prior notice.

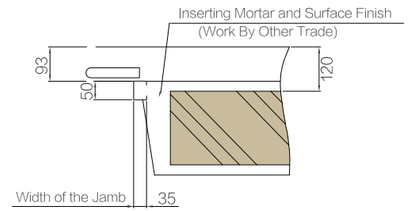
Functions and Specific-Purpose Operations, etc.		Details	●: Standard /	■: Optional
Energy-Saving Functions	Automatic Fan and Light Control	If an elevator receives no car- and hall- calls within a certain period of time, its ventilation fan and lights will turn off automatically.	●	
	Elevator Operation Period Control	The elevator operation period in a day is automatically controlled by a timer mounted on the control panel's computer board in the machine room.		■
	Parking Operation	When an elevator is shifted to Parking Operation mode, the elevator will move to the pre-assigned floor and park with its doors closed, and car lights and fan turned off.		■
Specific-Purpose Operations	Battery-Powered Automatic Landing Operation (LANDIC)	In the event of a power failure, a compact battery power source will move the car to the nearest available floor.		■
	Door Opening Failure Rescue Operation	When an elevator fails to open the doors at a landing floor, it will move to the next available floor and open them.	●	
	Earthquake Rescue Operation (WAVIC)	When a seismic sensor has detected a seismic wave (the secondary seismic wave), the elevator(s) will be shifted to rescue operation mode and automatically move to the nearest available floor for passenger evacuation.		■
	Fire Operation	In the event of a fire, the Fire Operation mode will automatically take an elevator directly to an evacuation floor and immobilize it there.	●	
	Firefighter Operation	The Firefighter Operation mode allows firefighters to use an elevator during a fire. Under this mode, the elevator responds only to car call registrations made by firefighters.		■
	Independent Operation	When Independent Operation is turned on, a designated elevator can operate independently for exclusive use.	●	
	Standby Power Operation	In the event of a power failure, the elevator(s) will return to an evacuation floor using standby power and will be held there on standby. * Standby power system shall be provided and installed by third parties.		■
Equipment for Building Security, etc.	Building-Management-System (BMS) Interface	Through a purpose-built interface, a building management system can receive up-to-date elevator operation data.		■
	CCTV-Camera Cables (between a car and a machine-room elevator control panel)	For a CCTV camera, video-signal cables suitable for the hoistway and / or machine room are available.		■
	Elevator Operation Supervisory Panel (such as watching board, console panel, etc.)	Through an elevator operation supervisory panel, the statuses of elevator operation can be monitored and the elevator operation controlled.		■
	Elevator Visual Monitoring System (ELVIC)	By monitoring the current statuses of running elevators and giving necessary commands to elevators through desk-top PCs in a specific remote location, ELVIC manages and controls elevator operation. (Desk-top PCs shall be provided by the customer.)		■
	In-Car Power Receptacle	A power receptacle can be installed in an elevator. (Maximum allowable wattage: 1 kW)		■

The above functions may change without prior notice.

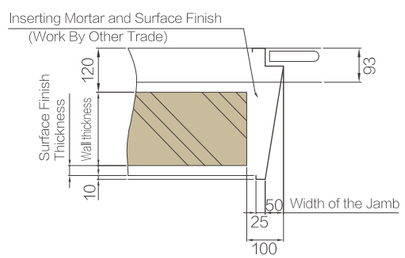
450Kg 2-Panel Right Side Opening Door (2SR)(Opposite for 2SL)



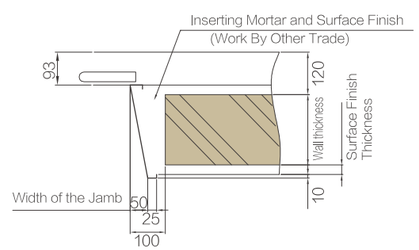
See Pg.29 A (Left Side of the Narrow Jamb)



See Pg.29 B (Right Side of the Narrow Jamb)

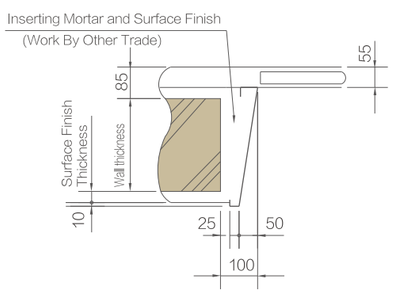


See Pg.29 A (Left Side of the Wide Jamb)

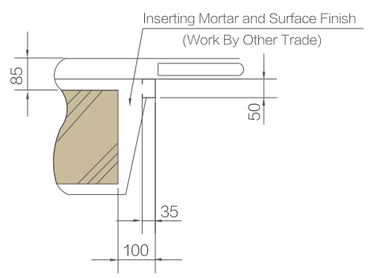


See Pg.29 B (Right Side of the Wide Jamb)

630–2000Kg 2-Panel Center Opening(2CO)



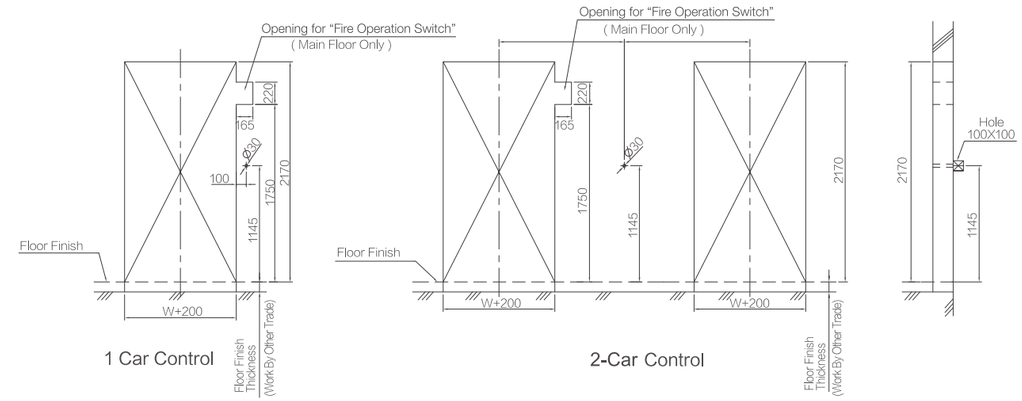
Wide Jamb



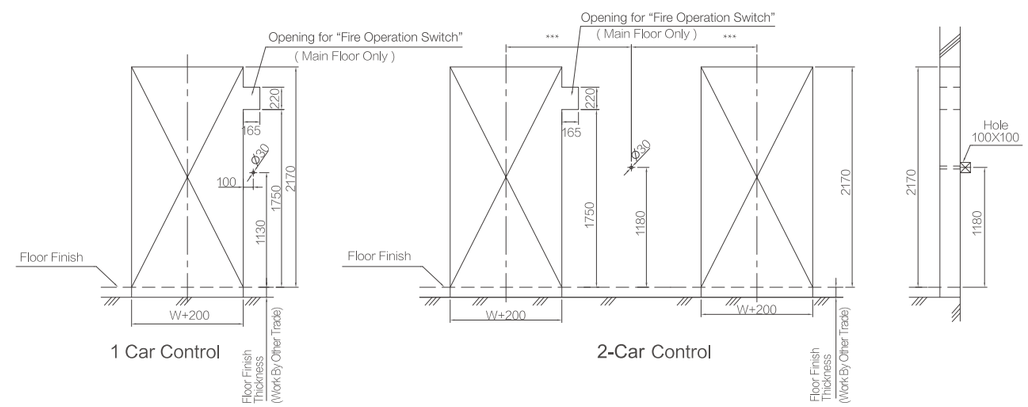
Narrow Jamb

Note: The above dimensions are for reference only. The actual engineering design data shall be used.
The wide jamb for fire rated door is different from above, which should be confirmed job by job.

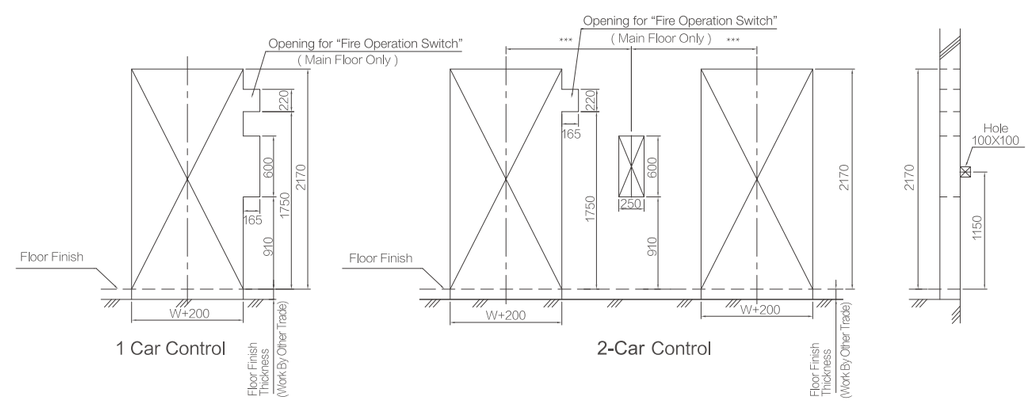
Standard Specification (Wall-Mounted)



Optional Specification (Wall-Mounted)

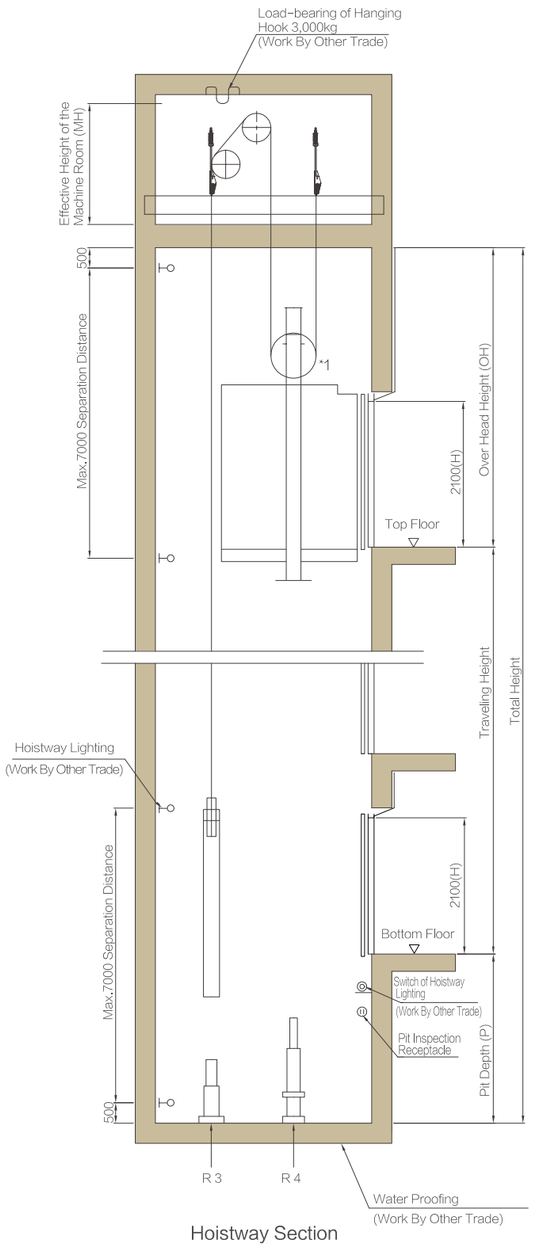


Optional Specification (Inserted)

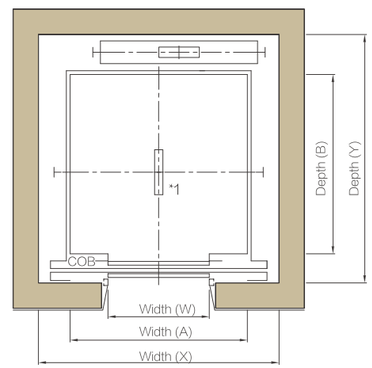


Note: The above dimensions are for reference only. The actual engineering design data shall be used.

Machine Room Arrangement Of The Hoistway (Wide Car)

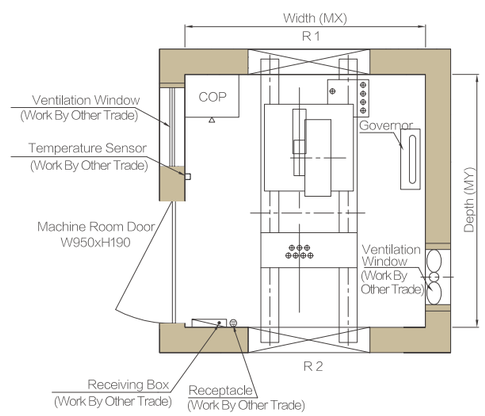


Hoistway Section



Hoistway Plan

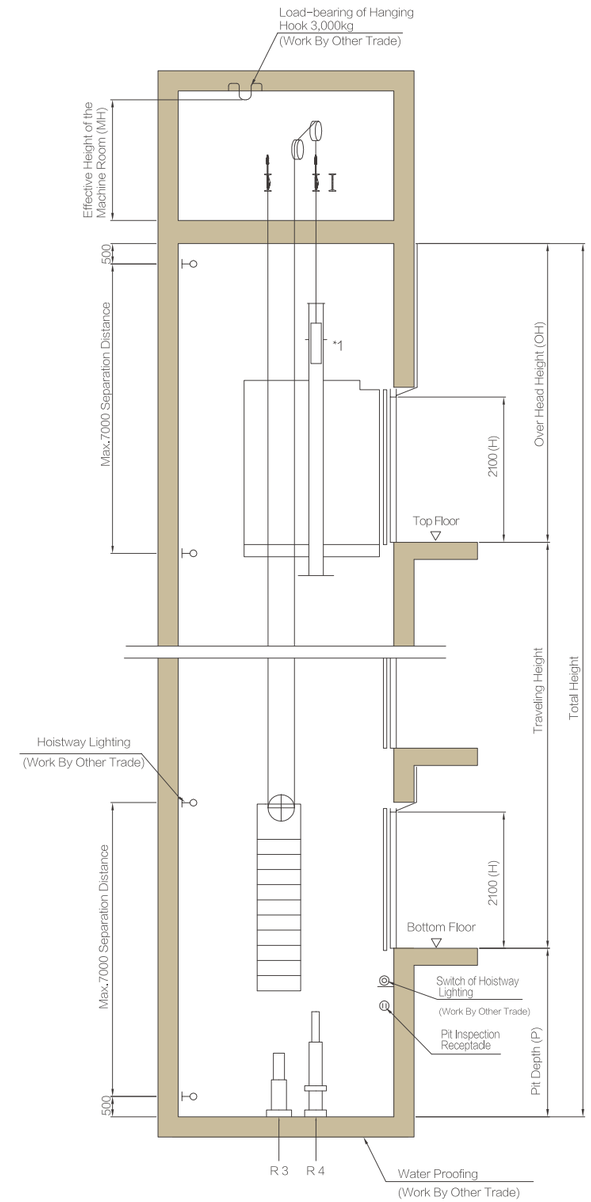
630kg、800kg、1050kg、1200kg、1350kg、1600kg、2000kg



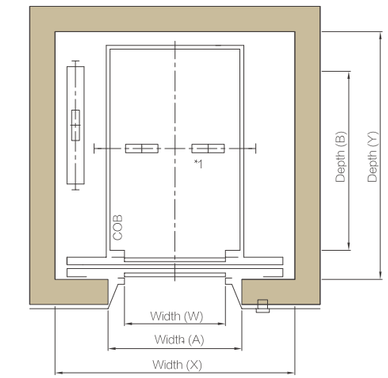
Machine Room Plan

*1. The above dimensions are for reference only. The actual engineering design data shall be used.
*2. The above dimensions are based on RC-structure hoistway.
*3. The location of the machine-room door in the above drawing is for reference only.
*4. The location of the machine-room control panel in the above drawing is for reference only.
*5. The above hoistway's internal dimensions are based on the hoistway with waterproof finish.
*6. If hoistway's internal dimensions are too large, intermediate beams shall be provided and installed by others based on Fujitec-submitted drawings.
*7. The required thickness of the hoistway's structural walls is 150mm or more (not including the thickness of wall finish).

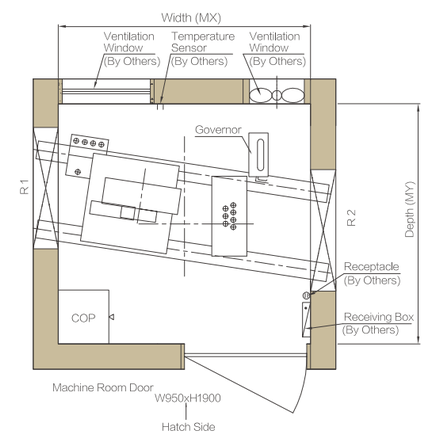
Machine Room Arrangement of The Hoistway (Deep Car)



Hoistway Section



Hoistway Plan



Machine Room Plan

*1. The above dimensions are for reference only. The actual engineering design data shall be used.
*2. The above dimensions are based on RC-structure hoistway.
*3. The location of the machine-room door in the above drawing is for reference only.
*4. The location of the machine-room control panel in the above drawing is for reference only.
*5. The above hoistway's internal dimensions are based on the hoistway with waterproof finish.
*6. If hoistway's internal dimensions are too large, intermediate beams shall be provided and installed by others based on Fujitec-submitted drawings.
*7. The required thickness of the hoistway's structural walls is 150mm or more (not including the thickness of wall finish).

Relevant Dimensions

Counterweight at the rear

Capacity (kg)	Speed (m/s)	Opening Type	Car Inside A x B (mm)	Opening W x H (mm)	Hoistway X x Y (mm)	Machine Room Size MX x MY x MH (mm)	Pit Depth P (mm)	Overhead OH (mm)	Machine room reaction (kN)		Pit reaction (kN)	
									R1	R2	R3	R4
630	1.0	2CO	1400 X 1100	800 X 2100	1800 X 1650	1800 X 1650 X 2200	1350	4050	64.0	41.4	80.8	93.2
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
800	1.0	2CO	1400 X 1350	800 X 2100	1800 X 1900	1800 X 1900 X 2200	1350	4050	75.6	44.5	89.3	105.0
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				
1050	1.0	2CO	1600 X 1500	900 X 2100	2000 X 2100	2000 X 2100 X 2200	1350	4050	85.9	52.3	103.6	124.2
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				
	3.0				2050 X 2200	2050 X 2200 X 2200	2450	4850	91.8	62.4	117.3	137.9
1200	1.0	2CO	1800 X 1500	1100 X 2100	2400 X 2100	2400 X 2100 X 2200	1350	4050	99.4	60.4	121.5	145.0
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				
	3.0				2400 X 2200	2400 X 2200 X 2200	2450	4850	104.6	71.1	135.2	158.8
1350	1.0	2CO	2000 X 1500	1100 X 2100	2450 X 2150	2450 X 2150 X 2200	1350	4050	101.9	66.2	127.2	153.7
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				
	3.0						2450	4850	111.5	71.7	140.5	167.0
1600	1.0	2CO	2000 X 1750	1100 X 2100	2450 X 2450	2450 X 2450 X 2400	1350	4050	123.7	79.4	158.5	189.9
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				
	3.0						2450	4850	132.2	84.3	170.2	201.6
1800	1.0	2CO	2100 X 1800	1100 X 2100	2550 X 2500	2550 X 2500 X 2400	1350	4050	131.7	84.4	168.8	182.9
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				
	3.0						2450	4850	140.5	89.4	181.0	195.1
2000	1.0	2CO	2200 X 1900	1200 X 2100	2650 X 2600	2650 X 2600 X 2400	1350	4050	144.4	85.6	179.8	219.0
	1.5						1450	4150				
	1.75						1500	4250				
	2.0						1550	4350				
	2.5						1880	4550				

Counterweight at the side

Capacity (kg)	Speed (m/s)	Opening Type	Car Inside A x B (mm)	Opening W x H (mm)	Hoistway X x Y (mm)	Machine Room Size MX x MY x MH (mm)	Pit Depth P (mm)	Overhead OH (mm)	Machine room reaction (kN)			Pit reaction (kN)	
									R1	R2	R5	R3	R4
800	1.0	2CO	1100 X 1800	800 X 2100	1900 X 2100	1900 X 2100 X 2200	1350	4050	78.0	44.3	10.1	91.2	106.9
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					
1050	1.0	2CO	1100 X 2100	900 X 2100	2000 X 2450	2000 X 2450 X 2200	1350	4050	88.0	48.1	12.0	102.0	122.6
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					
	3.0				2200 X 2450	2200 X 2450 X 2200	2450	4850	103.3	47.5	13.2	115.4	136.0
1200	1.0	2CO	1300 X 2100	1100 X 2100	2400 X 2450	2400 X 2450 X 2200	1350	4050	100.2	56.6	13.3	119.1	142.7
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					
	3.0				2450 X 2450	2450 X 2450 X 2200	2450	4850	111.5	60.8	14.6	132.9	156.4
1350	1.0	2CO	1300 X 2300	1100 X 2100	2400 X 2650	2400 X 2650 X 2200	1350	4050	105.9	59.2	13.1	123.6	150.1
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					
	3.0				2450 X 2650	2450 X 2650 X 2200	2450	4850	115.8	63.3	14.3	137.4	163.9
1600	1.0	2CO	1400 X 2400	1100 X 2100	2450 X 2800	2450 X 2800 X 2400	1350	4050	134.2	71.7	20.7	161.6	193.0
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					
	3.0						2450	4850	142.6	75.7	21.9	172.6	204.0
1800	1.0	2CO	1500 X 2400	1200 X 2100	2600 X 2800	2600 X 2800 X 2400	1350	4050	142.3	77.0	22.0	172.7	186.8
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					
	3.0						2450	4850	150.8	81.1	23.2	183.7	197.8
2000	1.0	2CO	1500 X 2700	1200 X 2100	2600 X 3050	2600 X 3050 X 2400	1350	4050	148.8	80.8	21.1	179.8	219.0
	1.5						1450	4150					
	1.75						1500	4250					
	2.0						1550	4350					
	2.5						1880	4550					

Notes: 1. The data shown above may vary based on elevator specification arrangement.
2. Refer to the Work Done by Others for the Acceptable Inclination of Hoistway's Vertical Centerline.

Power Supply Data

Capacity (kg)	Speed (m/s)	Motor Power (kw)	Rated Current (A)	Acceleration Current (A)	Equivalent Current (A)	Power Capacity (KVA)	Open-Circuit Current (A)	Allowable Maximum Length of Main Power Feeder Line (m)										Heat Generation Rate in Machine Room (Kjh)	Air Ventilation Rate in Machine Room(m^3/h)
								25 mm^2	35 mm^2	50 mm^2	70 mm^2	95 mm^2	120 mm^2	150 mm^2	185 mm^2	240 mm^2	300 mm^2		
630	1.0	4.5	17	30	5	6	20	380	518	679	920	1189	1668	2002	2348	2853	3004	4000	470
	1.5	6.8	23	41	7	9	25	287	392	513	695	898	1261	1513	1774	2156	2269	5950	700
	1.75	7.9	26	49	8	10	32	253	345	452	612	791	1110	1332	1563	1899	1999	6950	820
	2.0	9.0	27	52	9	11	32	237	324	424	575	743	1043	1251	1468	1783	1877	7950	940
800	1.0	6.0	20	33	5	8	20	324	442	578	784	1013	1421	1706	2001	2431	2559	5050	600
	1.5	8.7	29	50	8	11	32	224	305	400	542	701	983	1180	1384	1682	1771	7550	890
	1.75	9.6	33	60	10	12	40	194	265	347	470	607	852	1023	1199	1457	1534	8800	1040
	2.0	11.0	35	61	11	13	40	183	249	327	443	572	803	964	1131	1374	1446	10050	1190
	2.5	13.8	40	76	13	17	50	160	218	286	387	500	702	842	988	1201	1264	12600	1480
1050	1.0	7.0	26	40	7	9	32	247	337	441	598	773	1085	1302	1527	1856	1953	6600	780
	1.5	10.9	35	57	10	14	40	181	247	323	438	566	795	954	1119	1360	1432	9900	1170
	1.75	12.0	40	62	11	14	40	160	219	287	388	502	705	846	992	1205	1269	11550	1360
	2.0	14.0	43	71	12	17	50	147	201	263	357	461	648	777	912	1108	1166	13200	1560
	2.5	17.4	56	95	14	21	63	115	156	205	278	359	504	605	710	863	908	16500	1940
	3.0	20.4	67	125	21	24	80	94	129	169	229	296	416	499	585	711	749	19800	2330
1200	1.0	8.5	26	41	7	11	32	244	333	436	592	764	1073	1287	1510	1835	1931	7550	890
	1.5	13.6	39	60	10	17	40	164	224	293	397	513	720	864	1014	1232	1297	11350	1340
	1.75	14.9	42	66	11	18	50	152	207	272	368	476	668	802	941	1143	1203	13200	1560
	2.0	17.0	44	71	12	20	50	144	196	257	348	450	632	758	889	1081	1138	15100	1780
	2.5	21.8	58	99	16	26	63	110	150	197	267	346	485	582	683	830	874	18850	2220
	3.0	25.5	73	130	22	30	80	87	119	156	211	273	383	460	540	656	690	22650	2670
1350	1.0	9.2	31	44	7	12	32	207	283	370	502	648	910	1092	1281	1557	1639	8500	1000
	1.5	14.7	42	63	10	18	50	152	207	271	367	475	666	800	938	1140	1200	12750	1500
	1.75	16.0	46	71	12	19	50	139	190	248	337	435	611	733	860	1045	1100	14850	1750
	2.0	18.4	51	79	14	22	63	126	172	225	305	394	554	665	780	947	997	17000	2000
	2.5	23.0	63	106	17	27	80	101	138	181	245	317	445	534	626	761	801	21200	2500
	3.0	27.6	78	149	25	32	80	81	111	145	197	254	357	429	503	611	644	25450	3000
1600	1.0	10.9	36	56	9	14	40	178	243	319	432	558	783	940	1103	1340	1411	10050	1190
	1.5	17.4	49	82	13	21	50	129	176	231	313	405	568	682	800	972	1023	15100	1780
	1.75	19.0	54	91	15	23	63	119	162	213	288	373	523	628	737	895	942	17600	2070
	2.0	21.8	58	100	17	26	63	109	149	195	265	342	481	577	677	822	866	20100	2370
	2.5	27.2	75	138	22	32	80	85	116	152	206	266	373	448	525	638	672	25150	2960
	3.0	32.6	90	172	28	38	100	–	96	125	170	220	309	371	435	528	556	30150	3550
1800	1.0	12.2	40	61	10	15	40	161	219	287	390	503	707	848	995	1209	1273	11350	1340
	1.5	19.5	56	97	15	23	63	113	154	202	273	353	496	595	698	849	893	17000	2000
	1.75	21.3	59	98	16	25	63	107	146	192	260	336	472	566	664	807	850	19800	2330
	2.0	24.5	65	112	18	29	80	97	132	174	235	304	427	513	601	731	769	22650	2670
	2.5	30.6	84	156	25	36	100	–	103	135	183	237	333	399	469	569	599	28300	3330
	3.0	36.2	93	173	28	42	100	–	92	121	164	212	298	358	420	511	537	33950	4000
2000	1.0	13.6	44	67	11	17	50	145	197	259	351	453	636	763	895	1088	1145	12600	1480
	1.5	21.7	62	105	16	26	80	102	139	183	247	320	449	539	632	768	809	18850	2220
	1.75	23.7	66	107	17	28	80	96	131	172	233	302	424	508	596	725	763	22000	2590
	2.0	27.2	72	121	20	32	80	88	120	158	214	276	388	466	546	664	699	25150	2960
	2.5	34.0	94	173	27	39	100	–	91	120	163	210	295	355	416	505	532	31400	3700

Notes: 1. The data shown above may vary based on elevator specification arrangement.
2. Earthling wires shall be arranged ans installed based on local elevator code requirement.

Work Done by Others

1. Elevator Machine-Room and Hoistway Environment

Temperature of Machine Room and Hoistway	Temperature of machine room and hoistway shall be kept from 5 °C (41 °F) to 40 °C (104 °F).
Relative Humidity	1. When a temperature reaches at 40 °C (104 °F), the relative humidity does not go beyond 50%.
	2. In the year's most humid month(s), relative humidity shall be kept lower than 90 % and the temperature lower than 25°C (77 °F).
	3. Dew condensation prevention measures shall be taken, if there are the possibilities that condensation form inside and on electrical equipment.

2. Electric Power Source

Type of Power Supply	1. Three-Phase Power Supply for Elevator Driving Machine 2. Single-Phase Power Supply for Lighting Equipment
Allowable Error of Voltage Value	The allowable error of voltage value is 7 % above and below the rated voltage.

3. Acceptable Inclination of Hoistway's Vertical Centerline

Hoistway's Vertical Length	Centerline's Tilt away from the Plumb Line (unit: mm)
30 meter or less	0 to 25 mm or less
More than 30 meters to 60 meters or less	0 to 35 mm or less
more than 60 m	0 to 50 mm or less

4. Work done by Others

The following items are in the scope of other contractors' work, not covering all items done by them.

For Hoistway

1.	Construct solid-state, fire-proof elevator hoistway.
2.	Cut out landing walls for Fujitec's installation of elevator operating fixtures and elevator equipment.
3.	Do wall finishing work by filling cement between jambs and landing walls.
4.	Do wall finishing work by filling cement between landing fixtures and landing walls.
5.	Give water-proofing and drainage treatment in elevator pit including the installation of pumping equipment.
6.	Install space divider screens between respective elevators in a hoistway pit.
7.	Install steel separator beams at regular vertical intervals in a hoistway.
8.	When hoistway is constructed with bricks, put steel lintels in their walls for Fujitec's installation of rail brackets. The steel lintels must be completely fixed inside the walls. The vertical height of the lintel is required to be 300 mm or more. For details, see the relevant drawings.
9.	When an elevator traveling distance from a floor to the next is more than 11 m, make an opening on the hoistway wall between the floors and install emergency exit doors in the opening for passenger evacuation.
10.	It is advised that there is no human access to the space below the hoistway pit.
11.	When the bottom of a hoistway pit is deeper than the required level, add backfill concrete up to the required level.
12.	Provide and install a pit ladder based on the layout drawings.
13.	Provide and install all of electricity supply apparatuses (inclusive of pipes, leads, wires, etc.) from the building's electricity supply system to the hoistway, landing floors and Fujitec-designated locations.
14.	Provide and install electrical outlets in the hoistway.
15.	Install lighting equipment of 30 watt or more at 7-meter intervals inside the hoistway with 0.5-meter clearance at the top and bottom of the hoistway. The lighting intensity is required to be 50 lux or more at the car-top working platform and at the 1-meter high position above the pit bottom.

For Machine Room

1.	Construct solid-state, fire-proof machine room.
2.	Provide and install a power switching / distributing board in the machine room.
3.	Install and lay electrical pipes, wires, and leads in the machine room. They shall be extended from the power switching / distributing board to the controller, machine, and other electrical equipment.
4.	Provide and install all of electricity supply apparatuses (inclusive of pipes, leads, wires, etc.) on various routes from the building's electricity supply system to the machine room and Fujitec-designated locations.
5.	Install lighting equipment in the machine room. The lighting intensity on the machine room's floor is 200 lux or more.
6.	Install air ventilator(s) and/or air conditioner(s) in order to keep the temperature of the machine room between 5 °C (41 °F) and 40 °C (104 °F).
7.	Provide and install electrical outlets in the machine room.
8.	Install fire-proof entrance doors in the machine room.
9.	Take a noise reduction measure, if it is required.
10.	Install smoke detector, if it is required.
11.	Make cutouts and holes in the machine room.
12.	Construct machine room floor of which 1-square-meter area can bear the load of 700 kgs.
13.	Make holes in the walls of a machine room for Fujitec's installation of machine support beams and fill concrete into the gap between the walls and the fixed beams.
14.	After the installation of electrical pipes, wires, and leads, etc. on the machine room floor, lay lightweight concrete and finish the floor surface with dust-resistant material.
15.	Make an appropriate size of opening on the roof or the sidewall of a machine room in order for Fujitec to carry in elevator machine and other equipment.
16.	Install machine lifting hooks and / or steel beams on the ceiling slabs of a machine room. The required lifting load capability is stated on the relevant installation drawings.
17.	Install windows and louvers in order to let in daylight into the machine room.
18.	If a person's entry into the machine room needs a ladder or stairs, the installation and fixation of it or them is required.
19.	In case the machine room has two or more floors and a distance between each floor is more than 500 mm, install a ladder or stairs between the floors. Guardrails shall be provided and installed on the upper floor(s) for the prevention of a person's fall.

Others

1.	Ground-fault interrupter and current leakage alarm are required to be protected against current-harmonic distortion.
2.	Lay building's telecommunication lines 500 mm away from the electric feeder lines for elevator system.
3.	Remove corroded metal materials from the machine room and the hoistway.
4.	Protect the machine room and the hoistway against hazardous gas.
5.	Prevent dust from accumulating in the hoistway and the machine room.
6.	Provide a storage room in order to stock elevator parts and installation materials.
7.	Do not place any tools and materials not related to elevators in the hoistway and the machine room.

FUJITEC

Reach Impossible height Mountain Shuttle Elevator

Fujitec Global Operations


Ohaio Plant(U.S.A)


Langfang Plant(China)


Shanghai Plant(China)


Korea Plant


Taiwan Plant

Big Wing (Grope Headquarters in Japan, Elevator Plant)


Shingapore Plant


India Plant

North & South America

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FUJITEC VENEZUELA C.A.
FUJITEC ARGENTINA S.A.
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