

FUJITEC

# REXIA

Machine-Room-Less 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 REXIA 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.

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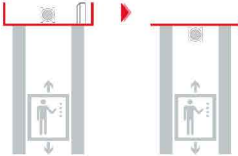
# Excellent Performance

## 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.

## No Elevator Machine Room Results in Space Saving

Our REXIA elevators require no machine room space. This remarkable feature results in a reduction of building construction cost and allows building architects to maximize floor design without needing to factor in machine rooms of conventional elevators.



In addition, REXIA'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.

- REXIA Elevator (PMGL)
- Conventional Elevator (ACGD)

Required Motor Capacity

8.5 kW

9.0 kW

Electrical Usage per Month\*

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

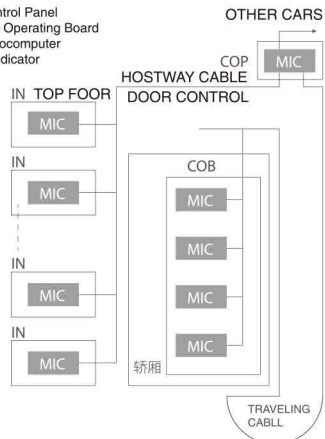
Fujitec's new door operators have adopted a permanent magnetic synchronous motor which doesn't have any gears for door speed control. The use of this motor reduces the size of a door operator and achieves smooth and precise door operation.



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

## Distributed Control System

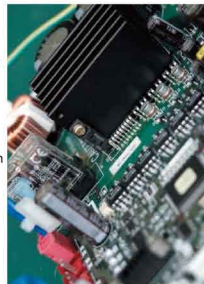
COP: Control Panel  
COB: Car Operating Board  
MIC: Microcomputer  
IN: Hall Indicator



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)



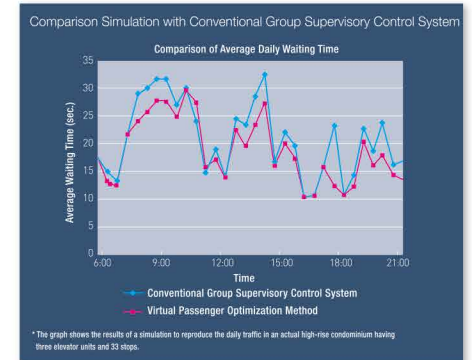
A safety-purpose control circuit independent of the elevator operating system detects unintended movement of a car and prevents the car from moving from the floor with its doors open. This function increases passenger safety.

## 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%.



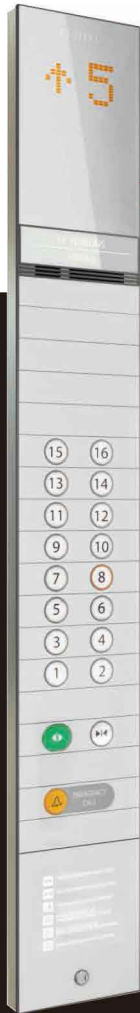
## EZSHUTTLE - Destination Floor Guidance System -



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.



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.

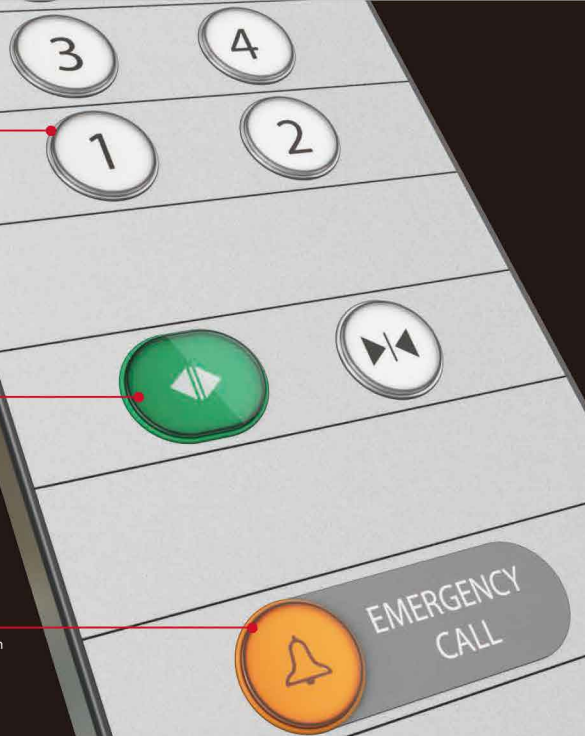
Newly Adopted Lettering      Former Standard Lettering

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

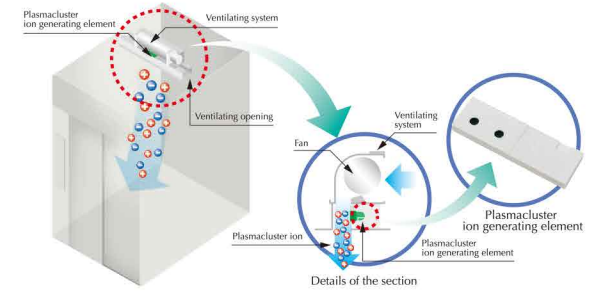
- A safety enhancement for increased reliability -

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 -

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.



  
 Plasmacluster is a trademark of Sharp Corporation

## 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
<b>Lifetime</b>	approx. 1,500 hours	approx. 20,000 hours	<b>approx. 13 times</b>
<b>Wattage</b>	90W	9W	<b>1/10 (one-tenth)</b>



## VONIC (Automatic Voice Announcement System)

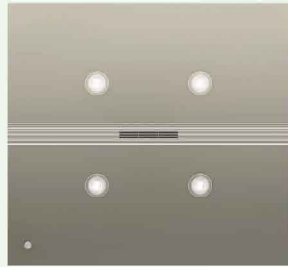
(Optional Specification)

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.]

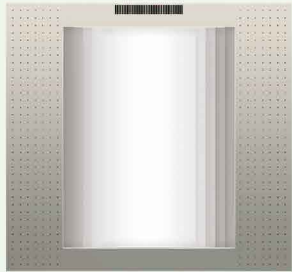


### Standard



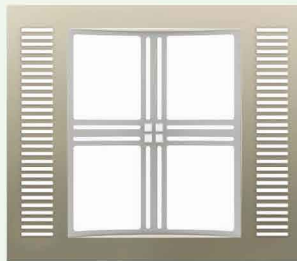
**CE-g2**

Flat Panel: Steel Sheet with Color Paint  
Light: Downlights



**CE-c2**

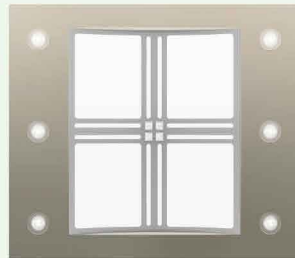
Arch-Shaped Part: Milky-White Acrylic Sheet  
Flat Part: Steel Sheet with Color Paint  
Light: Fluorescent Tubes



**CE-c4**

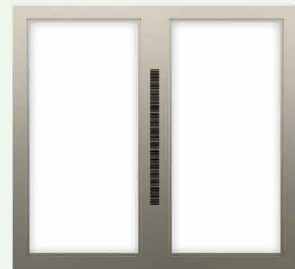
Arch-Shaped Part: Milky-White Acrylic Sheet with the Crossed Triple Beam  
Stripe-Pattern Part: Steel Sheet with Color Paint  
Light: Fluorescent Tubes

### Optional



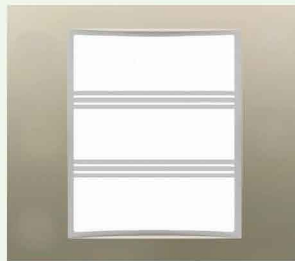
**CE-c1**

Arch-Shaped Part: Milky-White Acrylic Sheet  
Flat Part: Steel Sheet with Color Paint  
Light: Fluorescent Tubes & Downlights



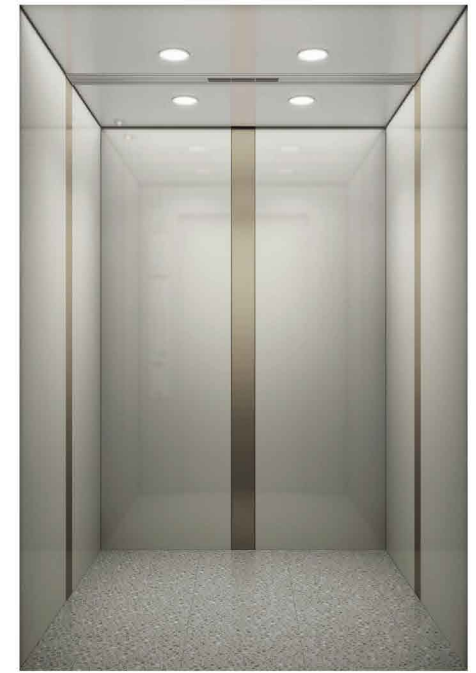
**CE-c3**

Lighting Panels: Milky-White Acrylic Sheet  
Frame: Steel Sheet with Color Paint  
Light: Fluorescent Tubes  
The cover level is 120 mm higher than that of the frame.



**CE-c5**

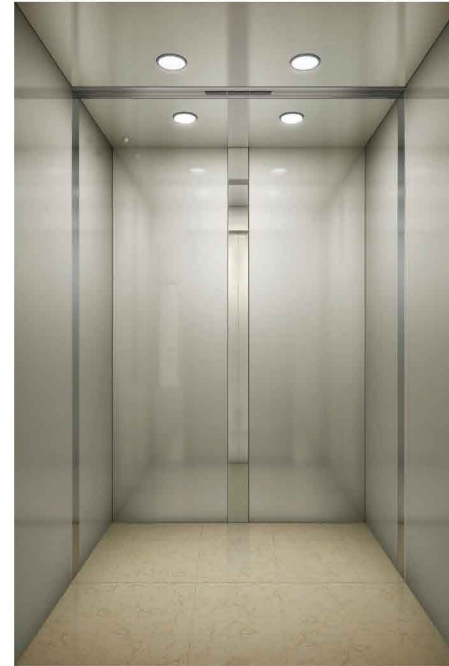
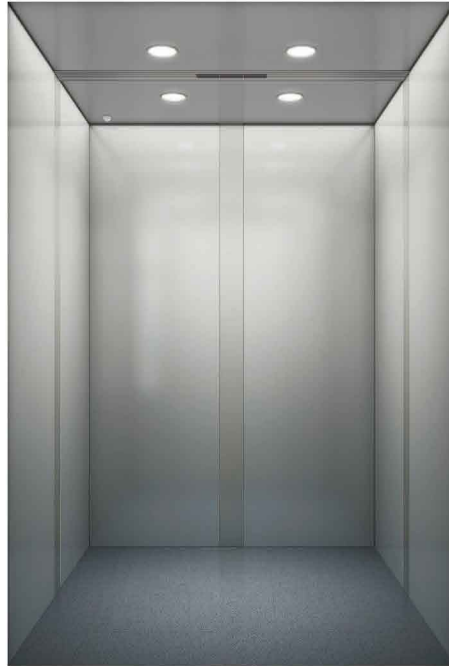
Arch-Shaped Part: Milky-White Acrylic Sheet with the Two Parallel Triple Beams  
Flat Panel: Steel Sheet with Color Paint  
Light: Fluorescent Tubes



**RE-S1**

Ceiling: Paint Finished Steel Sheet (TE-b2)  
(Design: CE-g2)  
Walls & Transom: Paint Finished Steel Sheet (TE-b2)  
(Design: CR-b3)  
Wall's Center Panels: Paint Finished Steel Sheet (TE-f2)  
Doors: Paint Finished Steel Sheet (TE-b2)

Fan: Cross-Flow Fan with IONFUL  
Car Operating Board: (FX-g1) Acrylic Resin & Polycarbonate  
Floor: PVC Tiles (BD-b2)  
Sill: Stainless Steel  
Clear Ceiling Height: 2350 mm, Car Panel Height: 2350 mm



## RE-S2

Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-a7)
Walls & Transom: (Design: CR-b1)	Paint Finished Steel Sheet (TE-a7)
Wall's Center Panels:	Paint Finished Steel Sheet (TE-a9)
Doors:	Paint Finished Steel Sheet (TE-a7)
Fan:	Cross-Flow Fan with IONFUL
Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
Floor:	PVC Tiles (BD-b1)
Sill:	Stainless Steel

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

## RE-S3

Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-b1)
Walls & Transom: (Design: CR-b1)	Paint Finished Steel Sheet (TE-b1)
Wall's Center Panels:	Paint Finished Steel Sheet (TE-f1)
Doors:	Paint Finished Steel Sheet (TE-b1)
Fan:	Cross-Flow Fan with IONFUL
Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
Floor:	PVC Tiles (BD-b3)
Sill:	Stainless Steel

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

## RE-S4

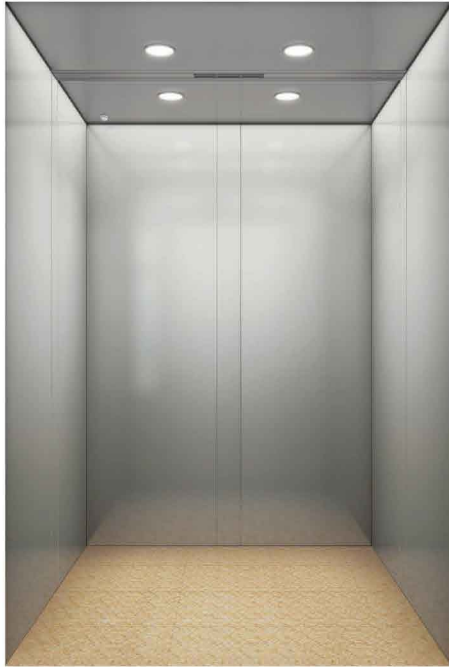
Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-a7)
Walls & Transom: (Design: CR-c1)	Paint Finished Steel Sheet (TE-a7)
Wall's Center Panels:	Stainless Steel with Mirror Finish
Doors:	Paint Finished Steel Sheet (TE-a7)
Fan:	Cross-Flow Fan with IONFUL
Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
Floor:	PVC Tiles (BD-b1)
Sill:	Stainless Steel

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

## RE-S5

Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-a7)
Walls & Transom: (Design: CR-b6)	Paint Finished Steel Sheet (TE-a7)
Wall's Center Panels:	Paint Finished Steel Sheet (TE-a7)
Doors:	Paint Finished Steel Sheet (TE-a7)
Fan:	Cross-Flow Fan with IONFUL
Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
Floor:	PVC Tiles (BD-b6)
Sill:	Stainless Steel

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



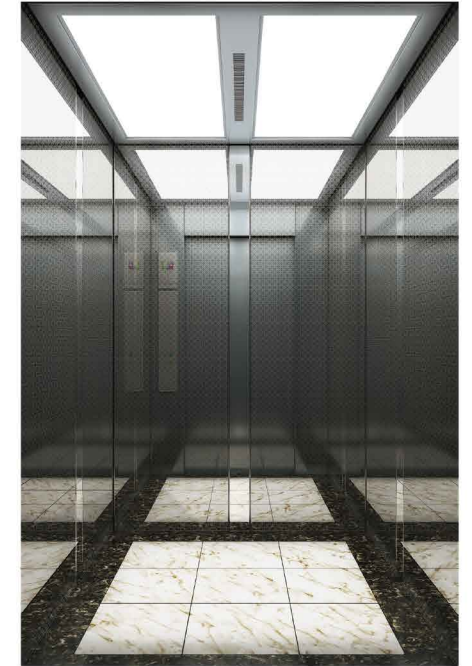
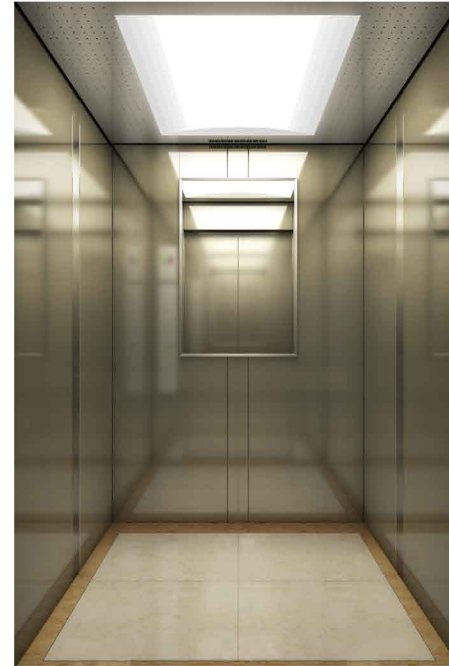
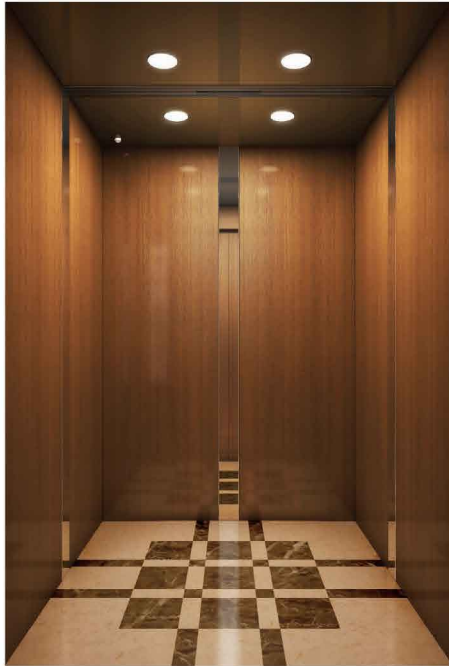
<b>RE-S6</b>	Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-b1)
	Walls & Transom: (Design: CR-b7)	Paint Finished Steel Sheet (TE-b1)
	Wall's Center Panels:	Paint Finished Steel Sheet (TE-b1)
	Doors:	Paint Finished Steel Sheet (TE-b1)
	Fan:	Cross-Flow Fan with IONFUL
	Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
	Floor:	PVC Tiles (BD-b4)
	Sill:	Stainless Steel
	Clear Ceiling Height: 2350 mm, Car Panel Height: 2350 mm	

<b>RE-S7</b>	Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-b2)
	Walls & Transom: (Design: CR-b8)	Paint Finished Steel Sheet (TE-b2)
	Wall's Center Panels:	Paint Finished Steel Sheet (TE-b2)
	Doors:	Paint Finished Steel Sheet (TE-b2)
	Fan:	Cross-Flow Fan with IONFUL
	Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
	Floor:	PVC Tiles (BD-b5)
	Sill:	Stainless Steel
	Clear Ceiling Height: 2350 mm, Car Panel Height: 2350 mm Depending on the specifications, the rear wall will be divided into five panels.	

<b>RE-X1</b>	Ceiling: (Design: CE-g2)	Paint Finished Steel Sheet (TE-f1)
	Walls & Transom: (Design: CR-c5, CR-c6)	Stainless Steel with Hairline Finish
	Wall's Center Panels: (Design: CR-c5 [Right] ) (Design: CR-c6 [Left] )	Stainless Steel with Hairline Finish Stainless Steel with Mirror Finish

Doors:	Stainless Steel with Hairline Finish
Fan:	Cross-Flow Fan with IONFUL
Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
Floor:	PVC Tiles (BD-b6)
Sill:	Stainless Steel
Clear Ceiling Height: 2350 mm, Car Panel Height: 2350 mm	





<b>RE-X2</b>	Ceiling: (Design: CE-g2)	Black-Titanium-Coated Stainless Steel with Mirror Finish
	Walls & Transom:	Steel Panel with Laminate Sheet (W-205)
	Wall's Center Panels:	Stainless Steel with Mirror Finish
	Doors:	Steel Panel with Laminate Sheet (W-205)
	Fan:	Cross-Flow Fan with IONFUL
	Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
	Floor:	Designed PVC Floor
	Sill:	Stainless Steel
	Clear Ceiling Height: 2350 mm, Car Panel Height: 2350 mm	

<b>RE-X3</b>	Ceiling: (Design: CE-c1)	Paint Finished Steel Sheet (TE-a7)
	Walls & Transom:	Paint Finished Steel Sheet (TE-a7)
	Wall's Center Panels:	Gold-Titanium-Coated Etched Stainless Steel with Mirror Finish
	Doors:	Paint Finished Steel Sheet (TE-a7)
	Fan:	Cross-Flow Fan with IONFUL
	Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
	Floor:	Designed PVC Floor
	Sill:	Stainless Steel
	Clear Ceiling Height: 2425 mm, Car Panel Height: 2600 mm Note: When the car design of RE-X3 is selected, hoistway overhead will be increased by 250 mm.	

<b>RE-X4</b>	Ceiling: (Design: CE-c2)	Paint Finished Steel Sheet (TE-f1)
	Side Walls & Transom:	Paint Finished Steel Sheet (TE-f2)
	Side Wall's Center Panels:	Stainless Steel with Sandblast Finish
	Rear Wall:	Paint Finished Steel Sheet (TE-f2)
	Doors:	Paint Finished Steel Sheet (TE-f2)
	Fan:	Cross-Flow Fan with IONFUL
	Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
	Floor:	Designed PVC Floor
	Sill:	Stainless Steel
	Mirror Frame: Stainless Steel with Hairline Finish (Mirror to be supplied and installed by Others)	
Clear Ceiling Height: 2445 mm, Car Panel Height: 2600 mm Note: When the car design of RE-X4 is selected, hoistway overhead will be increased by 250 mm.		

<b>RE-X5</b>	Ceiling: (Design: CE-c3)	Paint Finished Steel Sheet (TE-b1)
	Walls & Transom:	Stainless Steel with Etching and Mirror Finish (YS-015)
	Wall's Center Panels:	Stainless Steel with Mirror Finish
	Doors:	Stainless Steel with Etching and Mirror Finish (YS-015)
	Fan:	Cross-Flow Fan with IONFUL
	Car Operating Board: (FX-g1)	Acrylic Resin & Polycarbonate
	Floor:	Designed PVC Floor
	Sill:	Stainless Steel
	Clear Ceiling Height: 2480 mm, Car Panel Height: 2600 mm Note: When the car design of RE-X5 is selected, hoistway overhead will be increased by 250 mm.	



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

Faceplate: Acrylic Resin and Polycarbonate  
 Indicator: Multicolor LCD Screen  
 Buttons: Push Buttons

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

Faceplate: Stainless Steel with Mirror and Sandblast Finish  
 Indicator: Orange Dot-Matrix LED  
 Buttons: Push Buttons

Faceplate: Stainless Steel with Mirror and Sandblast Finish  
 Indicator: Multicolor LCD Screen  
 Buttons: Push Buttons

**FX-g3**



Faceplate: Acrylic Resin and Polycarbonate  
 Buttons: Push Buttons

**FX-g31**



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

## 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: Number  
 Lighting Color: Orange



**CP-D1**  
 Type: Stainless Steel Button  
 When Pressed: Light Emitting Parts: Ring  
 Lighting Color: Orange



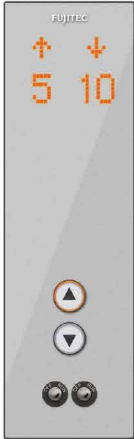
**CP-D3**  
 Type: Stainless Steel Button with Braille Dots  
 When Pressed: Light Emitting Parts: Ring  
 Lighting Color: Orange

FX-g4



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

FX-g5



FX-g6



FX-g7



FX-g8



Note: Key Switch is Optional.



FX-c4



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

FX-c5



FX-c6



FX-c7



FX-c71



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





1 Car



2 Cars



Group Supervisory Control

<b>TE-a9</b>		<b>TE-a7</b>		<b>Ceilings, Car Panels, Car Doors, Landing Doors, and Jamb: Paint</b> <small>Note: The colors of TE-f1 and TE-f2 cannot be used for jambs and landing doors.</small> <small>*Actual colors may differ from the images.</small>
<b>TE-f1</b>		<b>TE-b1</b>		
<b>TE-f2</b>		<b>TE-b2</b>		
<b>YS-001</b>	<b>YS-004</b>	<b>YS-007</b>	<b>YS-008</b>	<b>Car Panels, Car Doors, and Landing Doors: Stainless Steel with Etching</b> <small>*The dimensions of an actual pattern differ from the images.</small>
<b>YS-015</b>	<b>YS-025</b>	<b>YS-026</b>	<b>YS-059</b>	
<b>BD-b1</b>	<b>BD-b2</b>	<b>BD-b3</b>	<b>BD-b4</b>	
<b>BD-b5</b>	<b>BD-b6</b>			<b>Car Floor (Vinyl Tile)</b> <small>*The scale and color of an actual design differs from the images.</small>

# Systems & Functions

## REXIA Main Specifications

### Capacity

450, 630, 800, 1000, 1200, 1350, 1600, and 2000 kgs

### Speed

1.0, 1.5, 1.75, and 2.0 mps  
Enquiry-Based Provision: 2.5 mps  
(For elevators of 450- or 630- kg load capacity. 2.5 mps is not available.)

### Number of Served Floors

30 Stops or Less

### Travel Height Main Specifications

80 m 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, 1600-kg (Deep-Car Type), and 2000-kg (Deep-Car Type) load capacity are equipped with 2-panel side opening doors as standard.

## 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.	●		

# 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.		■

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)		■

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