



**mitsubishi
ELECTRIC**

PASSENGER ELEVATOR
(COMPACT MACHINE ROOM SYSTEM)
Series-IP Version2

Changes for the Better

Quality
in Motion

NexWay-S



Making Positive Contributions to the Earth and its People through Technology and Action

Preventing Global Warming

- Reduce CO₂ emissions from product usage by 30%^{*1}
- Reduce total CO₂ emissions from production by 30%^{*2}
- Aim to reduce CO₂ emissions from power generation

Creating a Recycling-Based Society

- Reduce, Reuse and Recycle products ("3Rs")
- Reduce resources used by 30%^{*1}
- Zero emissions from Manufacturing
- Reducing the direct landfill of waste to zero.

Ensuring Harmony with Nature
Fostering Environmental Awareness



Environmental Vision 2021

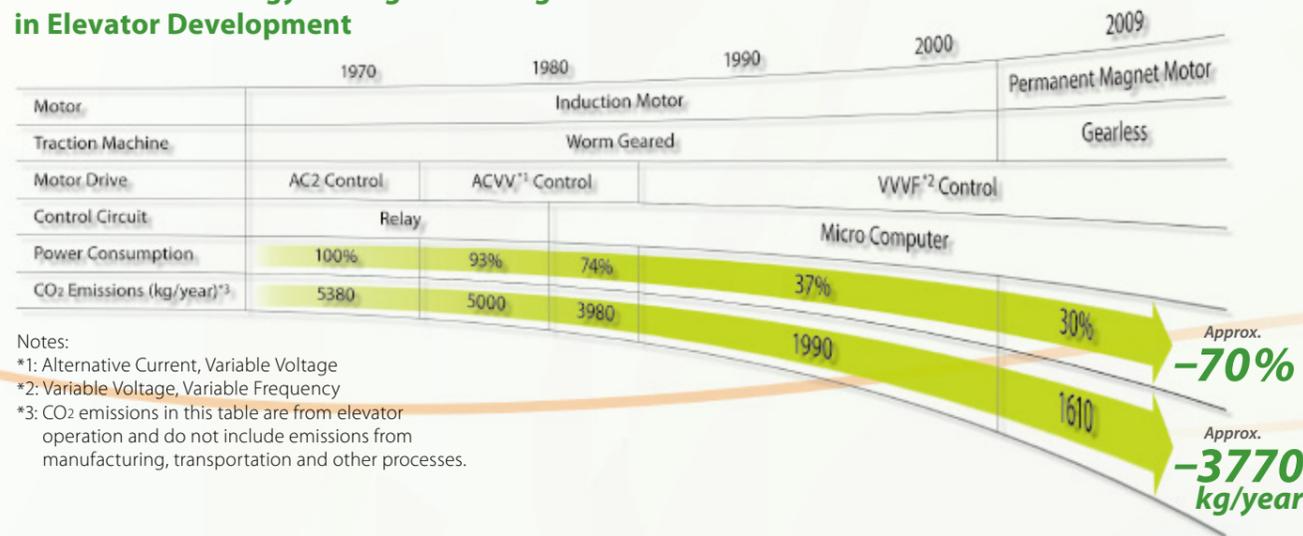
Environmental Vision 2021 is the long-term environmental management vision of the Mitsubishi Electric Group. It establishes a framework for realizing a sustainable planet, and defines long-term initiatives to prevent global warming and to create a recycling-based society.

Notes: *1: Compared to emissions in 2000.
*2: Compared to emissions in 1990.

Mitsubishi Electric's green technologies have been developed as part of its long and profound commitment to energy-saving.

- Profile
- Design
- Features
- Basic Specifications
- Important Information

Milestones of Energy-Saving Technologies in Elevator Development



Notes:
*1: Alternative Current, Variable Voltage
*2: Variable Voltage, Variable Frequency
*3: CO₂ emissions in this table are from elevator operation and do not include emissions from manufacturing, transportation and other processes.

Our elevators stay a step ahead with even more advanced energy conservation technology: Regenerative Converter (Optional)

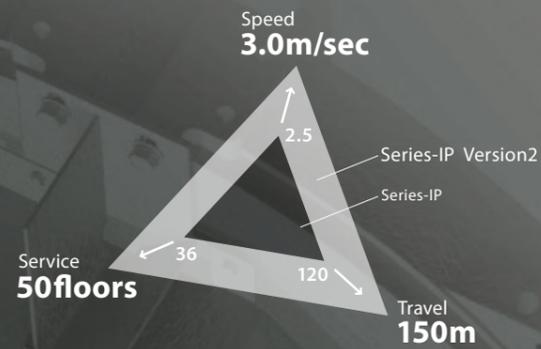
Compared to the same type of elevator without a Regenerative Converter:
Energy-saving effect: Up to 35%
CO₂ emissions: -1,400 kg/year

(The elevator is operated under different conditions from those of the table, "Milestones of Energy-Saving Technologies in Elevator Development" on page 1.)
Please refer to page 5 for details.

Our Global Standards for Compact Machine Room Elevators

Enhanced Specifications

The NexWay-S Version2 has enhanced specifications for wider application to meet diversified customer needs.



Application



Green Technology

Efficient use of resources and minimizing environmental burden through leading-edge technology.

Variable Traveling Speed Elevator System

An elevator that travels faster according to the number of passengers, reducing waiting time and traveling time.

Compact Machine Room

The machine room area is the same as that of a hoistway, maximizing available space in the building.

Group Control

Advanced group control systems enhance transport efficiency and reduce passenger waiting time through optimum car allocation.

Pleasant Design

Increased design options make elevators more easy to use and pleasant.

Green Technology

SUSTAINABLE ENERGY USE

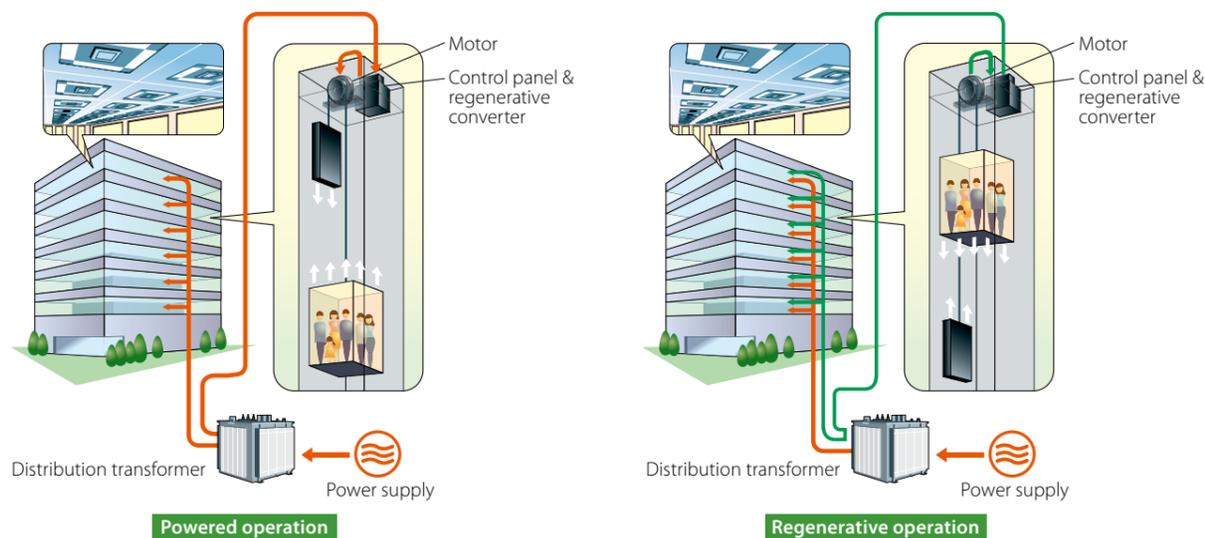
Mitsubishi Electric's leading-edge technology has made it possible for elevators to conserve energy. The Regenerative Converter makes the most of power generated by the traction machine. Also, employing the Joint Wrap Motor and energy-saving features, the elevators use energy more wisely and efficiently.

Regenerative Converter (Optional)

Efficient use of power

The elevator usually travels using power from a power supply (powered operation); however, when it travels down with a heavy car load or up with a light car load (regenerative operation), the traction machine functions as a power generator. Although the power generated by the traction machine is usually dissipated as heat, the Regenerative Converter transmits the power back to the distribution transformer and feeds to the

electrical network in the building along with power from power supply. Compared to the same type of elevator without a Regenerative Converter, this system provides an energy-saving effect of up to 35%. (Reduction in CO₂ emissions: 1400 kg/year) In addition, the Regenerative Converter has the effect of decreasing harmonic currents.



Joint Wrap Motor

Smaller carbon footprint

With the Joint Wrap Motor in traction machines, the iron core is split like a hinge, which allows coils to be wrapped around the core more densely, resulting in motor efficiency and compactness. It produces a high-density magnetic field for PM motors in traction machines that conserve energy and resources and reduce CO₂ emissions.



Energy Saving Features

Curbing energy consumption

Mitsubishi Electric offers features that help to reduce the energy consumption of elevators.

Energy-Saving Operation

- Number of Cars (ESO-N)

The number of service cars is automatically reduced to some extent without affecting passenger waiting time.

Energy-Saving Operation

- Allocation Control (ESO-W)

When a call is registered, the system controls car assignments considering the near-future traveling distance of all elevators.

Car Light/Fan Shut Off

- Automatic (CLO-A/CFO-A)

The car lighting/ventilation fan is automatically turned off if there are no calls for a specified period.

Variable Traveling Speed Elevator System

RAPID MODE

TIME SAVING

With Mitsubishi Electric's industry-first Variable Traveling Speed Elevator System, an elevator can travel faster than its rated speed according to the number of passengers, ultimately reducing waiting and traveling time.

Variable Traveling Speed Elevator System (VSE) (Optional)*

The Variable Traveling Speed Elevator System allows elevators to travel faster than their rated speed (Rapid Mode) depending on the number of passengers in the car. When the weight is well balanced between the car and the counterweight, the traction machine does not need its full power to make the elevator travel at the rated speed.

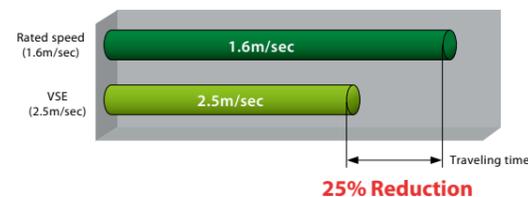
Thus, by utilizing unused power of the traction machine, the elevator can travel faster. Its efficient transport not only reduces frustratingly long waiting and traveling time but also conserves energy. VSE is a solution for users seeking time saving in elevator travel.

Waiting Time Reduction



According to Mitsubishi Electric's simulation, waiting time can be reduced up to approximately 12% when VSE is applied.

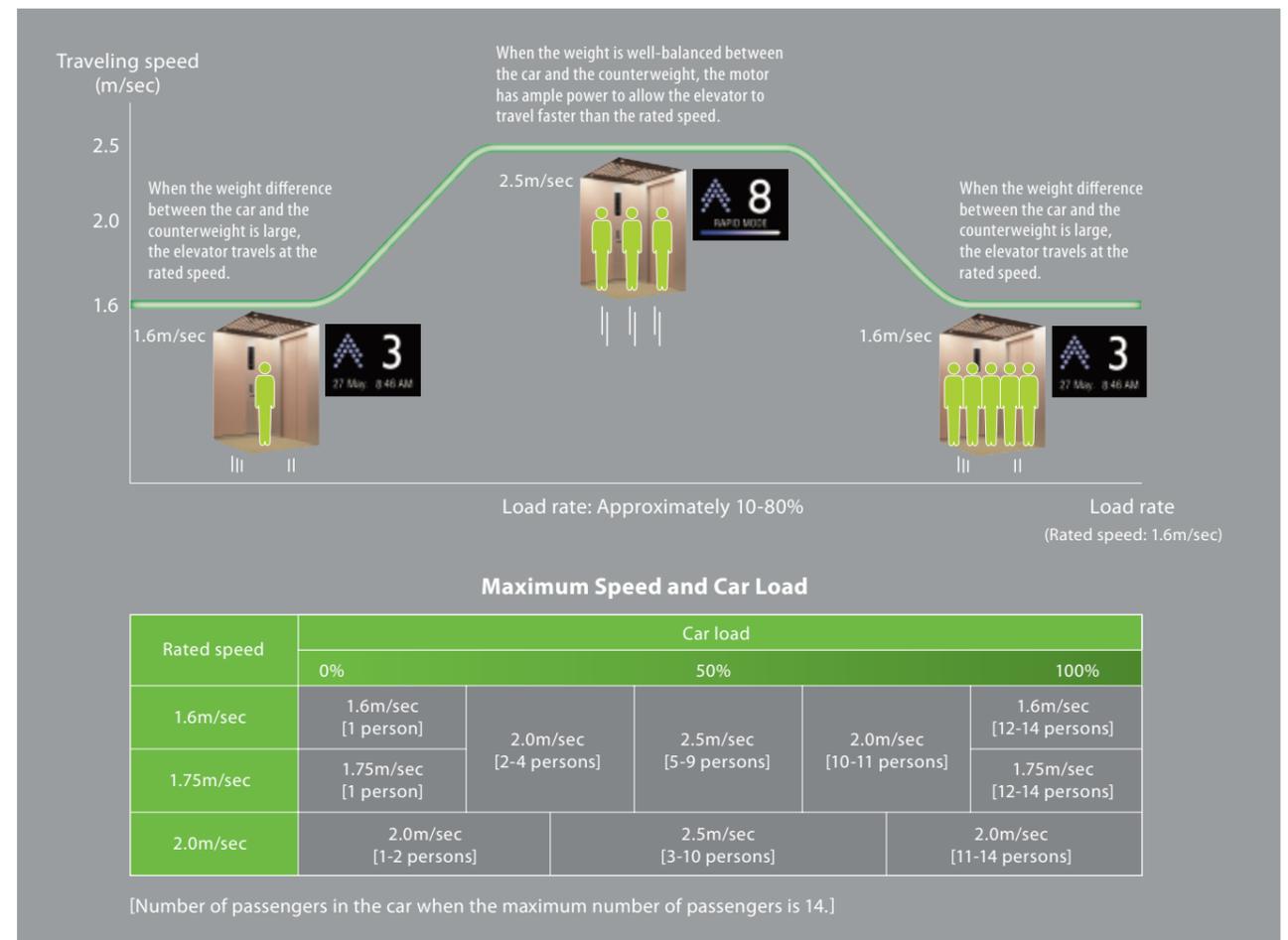
Traveling Time Reduction



Traveling time can be reduced approximately 25% when the elevator travels from the bottom to the top floor directly under Rapid Mode in VSE.

(Conditions)
 Travel: 36m, Floor height: 4.0m, 10 floors, Car load: 50%

Note: *Variable Traveling Speed Elevator System is applicable to elevators with rated speeds of 1.6 m/sec, 1.75 m/sec and 2.0m/sec.

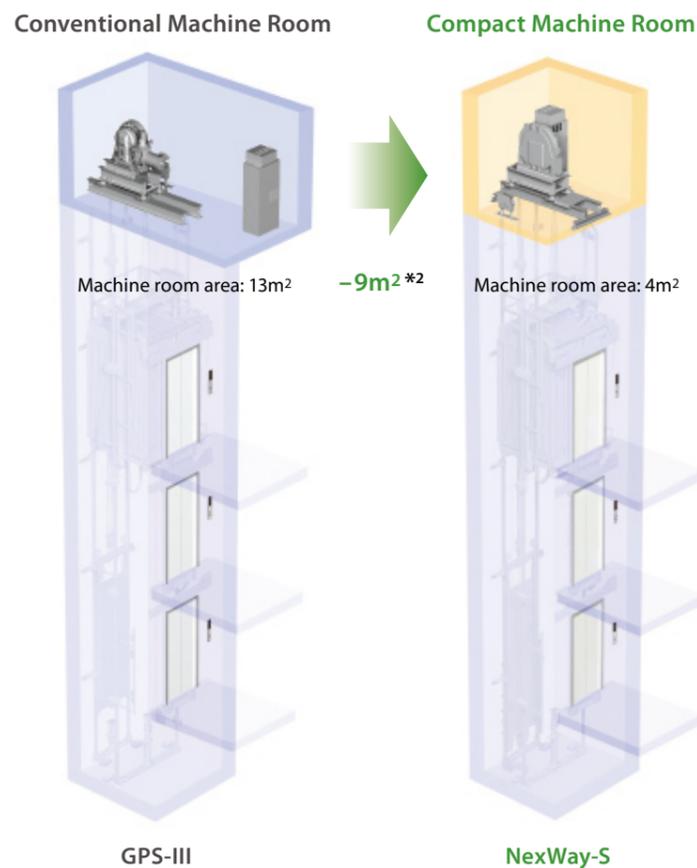


Compact Machine Room

SPACE SAVING

Through the development of the Compact Gearless Traction Machine and Compact Control Panel, Mitsubishi Electric has successfully reduced the machine room area to that of hoistway*1, where the machine room used to require an area twice as large as that of hoistway. It offers the most advanced elevator features without requiring a large machine room, thus maximizing the use of building space.

Example of Space Saving



Notes:

- *1: The area of the machine room may have to be larger than that of the hoistway in case of (a), (b) and/or (c) below.
 - (a) An optional feature that requires a panel(s), in addition to the control panel, is requested.
 - (b) The car interior width (AA) is less than 1600mm, and the entrance width (JJ) is less than 900mm for 2-panel center opening (CO) or 1100mm for 2-panel side opening (2S).
 - (c) The counterweight is installed in a side drop position.
- *2: The area of the machine room can be reduced approximately 9m² when the rated capacity is 1050kg and the rated speed is 1.75m/sec. The area may differ depending on the conditions.

Compact PM Gearless Traction Machine

Mitsubishi Electric was the first company to replace induction motors with its highly sophisticated PM (permanent magnet) motors for high-speed and super high-speed elevators.

The extremely thin PM motor manufactured using Mitsubishi Electric's unique stator core technology –Joint Wrap Motor*– has dramatically reduced not only the size of traction machines but also energy consumption. Further, PM motor suppresses harmonic noise and torque ripple for better ride comfort.

Note: *Please refer to page 6 for details.



Compact Control Panel

The control panel that drives the PM motor has also been reduced in size. Incorporating the most advanced, low-loss IGBT (Insulated Gate Bipolar Transistor) into an optimal design, the power unit has decreased in size significantly, making the control panel itself smaller than previous models. The functions and performance of this Compact Control Panel remain unchanged.

The VVVF Inverter Control delivers smooth, high-precision control of the traction machine. A combination of these state-of-the-art components contributes to significant power savings, while achieving the desired functions and performance of the control panel.

Group Control

EFFICIENT TRANSPORTATION

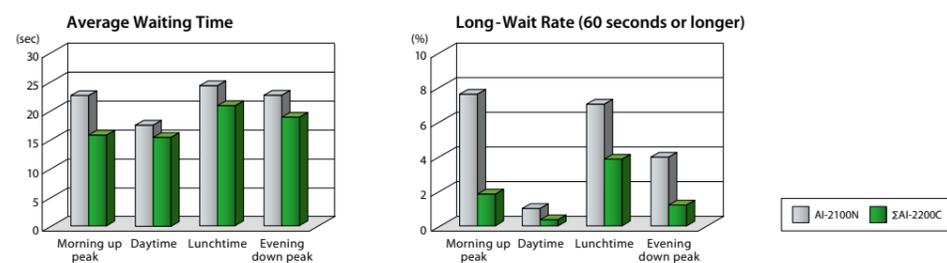
Mitsubishi Electric's breakthrough AI Neural Network* technology in elevator control enhances transport efficiency and reduces passenger waiting time through optimum car allocation, which allows elevators to use energy effectively. Two basic group control systems offer a variety of innovative group control features.

Note: *Neural Network is a mathematical model that emulates the structure of the nerves and cells of the human brain and its information processing mechanism.

Group Control Systems	Suitable Building Size	Number of Cars in a Group
ΣAI-22 System	Small to medium	3 to 4 cars
ΣAI-2200C System*	Large (Especially, a building with dynamic traffic conditions)	3 to 8 cars

The features introduced on these pages are applicable to ΣAI-2200C only. Please refer to page 32 and the ΣAI-2200C brochure for other features and details.

Performance

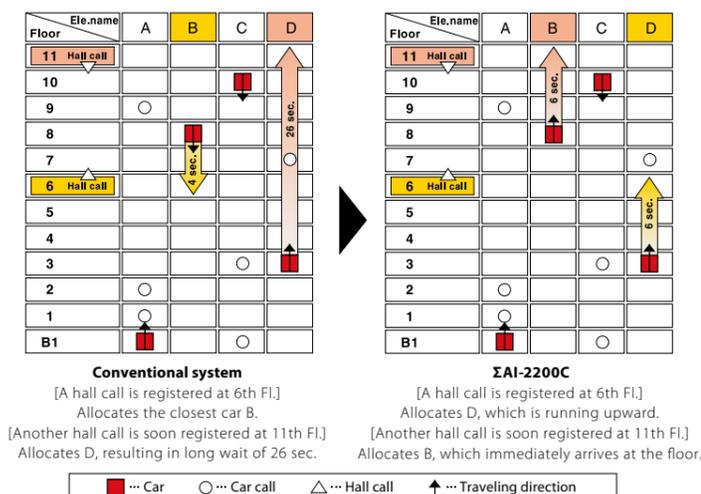


Cooperative Optimization Assignment

Forecasts a near future hall call to reduce long waits

When a hall call is registered, the algorithm assumes a near future call that could require long waits.

Through evaluation of the registered hall call and the forecasted call, the best car is assigned. All cars work cooperatively for optimum operation.



Dynamic Rule-Set Optimizer

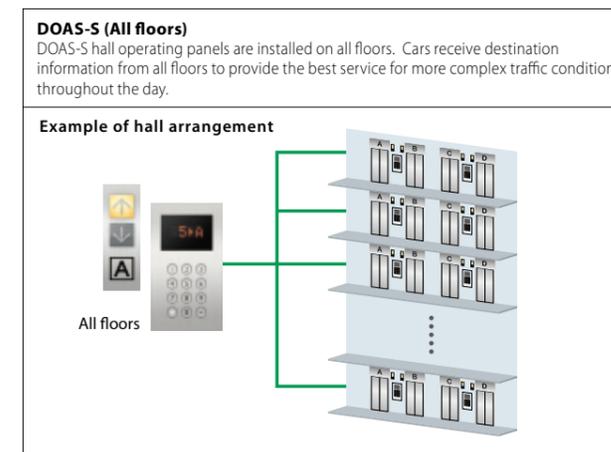
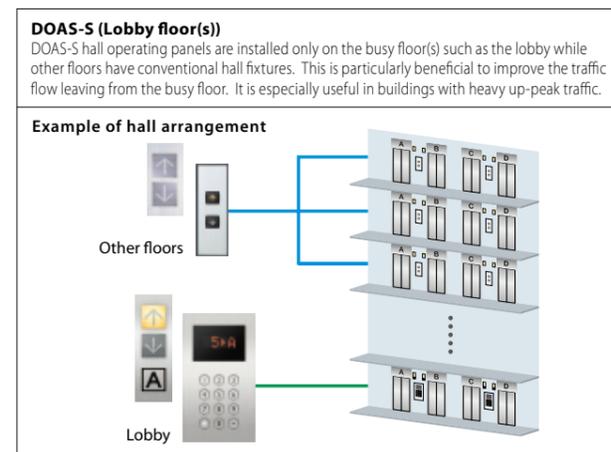
Selects optimum car allocation by "Rule-Set" simulations

Based on real traffic data, passenger traffic is predicted every few minutes. According to the prediction, real-time simulation selects the best Rule-Set (multiple rules have been set as car allocation patterns), which optimizes transport efficiency.

Destination Oriented Prediction System (DOAS-S) (Optional)

Allocates passengers to cars depending on destination floors

When a passenger enters a destination floor at a hall, the Hall Operating Panel immediately indicates which car will serve the floor. Because the destination floor is already registered, the passenger does not need to press a button in the car. Furthermore, dispersing passengers by destination prevents congestion in cars and minimizes their waiting and traveling time.



Pleasant Design

PASSENGER-FRIENDLY

Mitsubishi Electric designs elevators with not only safety and a comfortable ride, but also passenger-friendliness in mind. Its design makes elevators more pleasant and easy to use.

New Car Design

Sophisticated car design that suits various uses creates a pleasant and comfortable impression.



Higher Ceiling

A higher ceiling provides a spacious atmosphere in the car. The ceiling can be as high as 2700mm depending on the ceiling type.

Swing-type Car Operating Panel

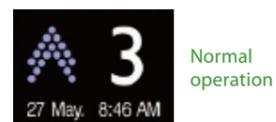
Incorporated in the front return panel, the car operating panel adds stylish accents.

LCD Position Indicator

Various graphic indication patterns can increase visibility.



<Indication examples>



Normal operation



Rapid mode in Variable Traveling Speed Elevator System



Emergency operation



Tactile Button

Popular stainless steel matte buttons are available.

Universal Design

Easy-to-use design elements such as large indicators, tactile buttons, handrails and mirrors make elevators even more friendly to all passengers.

(Universal Design: Copyright 1997 N.C. State University, The Center for Universal Design.)



See-Through Doors

Large glass windows increase visibility at the hall area, which can enhance security.



Items introduced on this page may be available as options.

A variety of car and hall designs that suit every building design



Car Design

Design Images

Hall Design

Car Operating Panels

Hall Signal Fixtures

Car Design

S00 Standard
Milky white globe (Plastic cover made of resin)



Ceiling



Painted Steel Sheet
(Only S00, N10, N20, N40, N90 and N110)

- Y031
- Y033
- Y055
- Y073
- Y074

Standard Design Image

- Ceiling** - Y033 (Ceiling height: 2200mm*)
- Walls** - SUS-HL
- Transom panel** - SUS-HL
- Doors** - SUS-HL
- Front return panels** - SUS-HL
- Kickplate** - Aluminum
- Flooring** - PR18
- Car operating panel** - CBE-N211

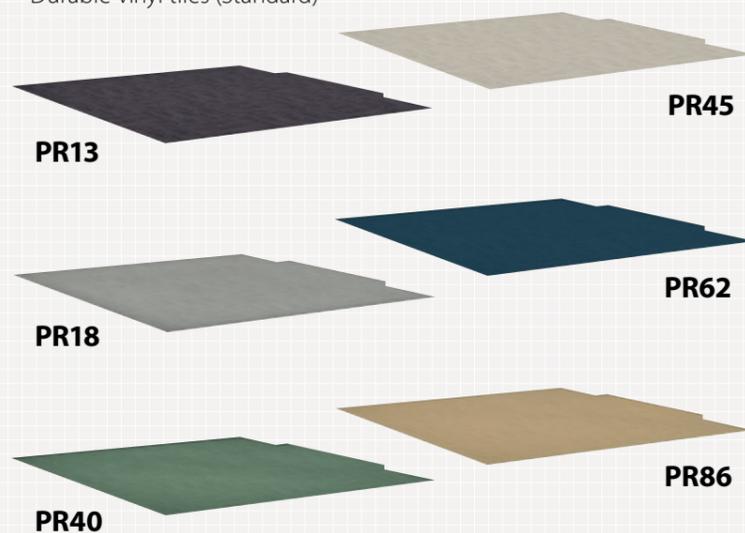
Note: *The higher ceiling type is available up to 2700mm as optional. The maximum ceiling height varies depending on the ceiling type.

Car Finishes

Walls	Standard	Stainless steel hairline	Entrance columns	Standard	CO doors: Integrated with front return panel	
	Optional	Pattern-printed steel sheet Painted steel sheet		Optional	2S doors: Stainless steel hairline Stainless steel mirror	
Transom panel	Standard	Stainless steel hairline	Kickplate	Standard	Aluminum	
	Optional	Pattern-printed steel sheet Painted steel sheet Stainless steel mirror		Optional	Painted steel sheet Stainless steel hairline	
Doors	Standard	Stainless steel hairline	Flooring	Standard	Durable vinyl tiles (2mm thick)	
		Optional		Pattern-printed steel sheet Painted steel sheet Stainless steel mirror Glass windows See-through doors	Optional	Durable rubber tiles (3mm or 6mm thick) Carpet (Supplied by customer) Marble/granite (Supplied by customer)
	Front return panel	Standard	Stainless steel hairline	Sill	Standard	Extruded hard aluminum
		Optional	Stainless steel mirror		Optional	Stainless steel

Flooring

Durable vinyl tiles (Standard)



Walls, Doors, Transom Panel and Front Return Panel

Stainless Steel Hairline (Standard)



Painted Steel Sheet (Optional)

Not applicable to front return panel



Pattern-Printed Steel Sheet (Optional)

Not applicable to front return panel



Actual elevator color may differ slightly from that shown.

Design Images

N10

Ceiling - Y055



N10S

Ceiling - SUS-HL



N10W

- Lighting** - Downlights
- Ceiling** - Y033
- Walls** - SUS-HL
- Transom panel** - SUS-HL
- Doors** - SUS-HL
- Front return panels** - SUS-HL
- Kickplate** - SUS-HL
- Flooring** - PR62
- Car operating panel** - CBE-N211



N20

- Lighting** - Central indirect downlights
- Ceiling** - Y033
- Walls** - SUS-HL
- Transom panel** - SUS-HL
- Doors** - SUS-HL
- Front return panels** - SUS-HL
- Kickplate** - SUS-HL
- Flooring** - PR45
- Car operating panel** - CBE-D221

The ceiling height of this design image is 2600mm.



N30

- Lighting** - Indirect full lighting
- Ceiling** - Arched milky white resin board
- Ceiling trim** - Black alumite
- Walls** - CP111
- Transom panel** - CP111
- Doors** - CP111
- Front return panels** - SUS-HL
- Kickplate** - SUS-HL
- Flooring** - PR18
- Car operating panel** - CBE-N221



Note: Please refer to page 17 and 18 for specification of car finishes.

Actual elevator color may differ slightly from that shown.

Design Images

N40

- Lighting** - Half mirror and downlights
- Ceiling (both sides)** - Y055
- Ceiling trim** - Black alumite
- Walls** - CP53
- Transom panel** - CP53
- Doors** - CP53
- Front return panels** - SUS-HL
- Kickplate** - SUS-HL
- Flooring** - PR86
- Car operating panel** - CBE-N221



N100

- Lighting** - Indirect full lighting
- Ceiling** - Arched milky white resin board
- Ceiling trim** - Black alumite
- Walls** - CP23
- Transom panel** - CP23
- Doors** - CP23
- Front return panels** - SUS-HL
- Kickplate** - Y055
- Flooring** - PR40
- Car operating panel** - CBE-C251



N90

- Lighting** - Indirect full lighting
- Ceiling** - Acrylic blocks and milky white resin board
- Ceiling trim** - Black alumite
- Walls** - CP141
- Transom panel** - CP141
- Doors** - CP141
- Front return panels** - SUS-HL
- Kickplate** - SUS-HL
- Flooring** - PR45
- Car operating panel** - CBV-N211



N110

- Lighting** - Indirect full lighting
- Ceiling** - Y055
- Ceiling trim** - Black alumite
- Walls** - CP101
- Transom panel** - CP101
- Doors** - CP101
- Front return panels** - SUS-HL
- Kickplate** - Y055
- Flooring** - PR13
- Car operating panel** - CBE-C240

Note: Please refer to page 17 and 18 for specification of car finishes.

Actual elevator color may differ slightly from that shown.

Hall Design

Jambs

E-102 Narrow Jamb
(Standard)



- Jamb - Y051
- Doors - Y051
- Hall position indicator and call button - PIE-A210N Boxless*

Note: *Please refer to page 30 for the sectional image of the boxless type.

E-302 Splayed Jamb
E-202 Square Jamb



- Jamb - Y116
- Doors - Y116
- Hall button - HBE-C260N Boxless*
- Hall position indicator - PIH-D421 Boxless*

E-312 Splayed Jamb with Transom Panel
E-212 Square Jamb with Transom Panel



- Jamb - SUS-HL
- Transom panel - SUS-HL
- Doors - Stainless steel etching (EP-B-009)
- Hall position indicator - PID-D410
- Hall button - HBE-C210N

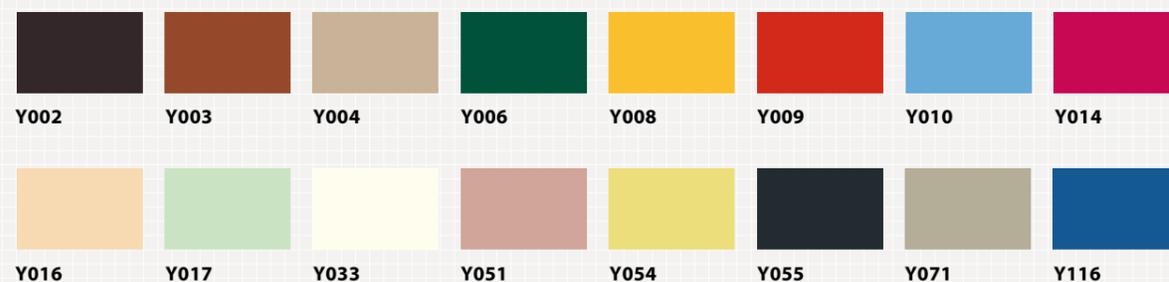
See-Through Doors



- Jamb - SUS-HL
- Transom panel - SUS-HL
- Doors - See-through doors
- Hall position indicator - PID-D410
- Hall button - HBE-C210N

Jambs, Doors and Transom Panel

Painted Steel Sheet (Standard)

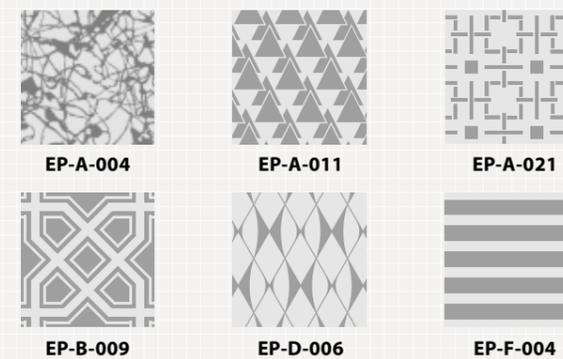


Etching Textures

Not applicable to front return panel

Metallic surface

Finished surface of etching



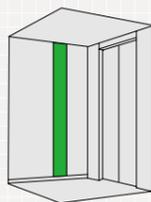
Entrance Finishes

Jamb	Standard	Painted steel sheet
	Optional	Stainless steel hairline
Doors	Standard	Painted steel sheet
	Optional	Stainless steel hairline
		Stainless steel etching
		Stainless steel etching with color paint
		Stainless steel mirror
		Glass windows
See-through doors		
Transom panel	Optional	Painted steel sheet
	Optional	Stainless steel hairline
		Stainless steel etching
Sill	Standard	Extruded hard aluminum
	Optional	Stainless steel

Actual elevator color may differ slightly from that shown.

Car Operating Panels

Side Wall



CBE-N211
(Standard for 2 to 30 floors)



Tactile button *1
(Plastic)



CBE-N217
(With alarm indication for EN81-70) *2



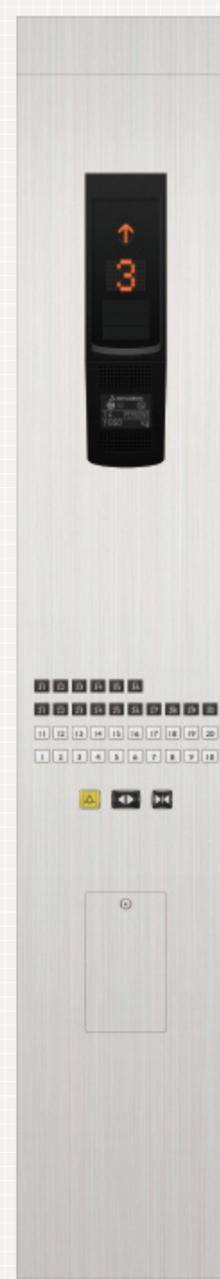
Tactile button
(Plastic)



CBE-N218
(With alarm indication for EN81-70) *2



Tactile button
(Plastic)



CBH-N211
(Standard for 31 or more floors)



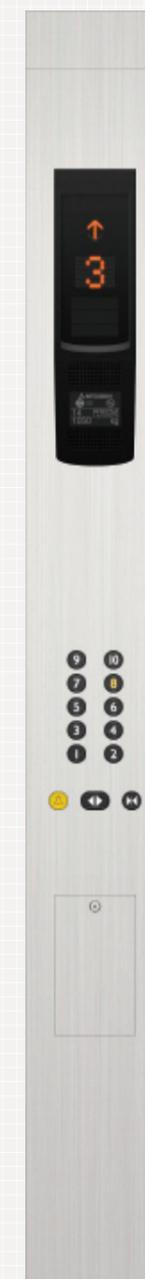
Flat button *3
(Plastic)



CBV-N211



Tactile button *3
(Stainless steel matte)



CBJ-N211



Flat button *3
(Plastic)



CBE-N221
(LCD indicator)



Tactile button *1
(Plastic)

Notes:

*1: Flat floor buttons are also available as CBF-N211 / CBF-N221.

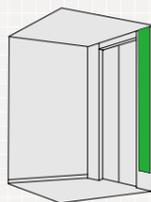
*2: Interphone which complies with EN81-72 is required.

*3: Please note that flat type (non-tactile) floor buttons and the floor buttons without color contrast cannot be used in countries where regulations such as EN81-70 mandate specific measures for physically disabled passengers.

Actual elevator color may differ slightly from that shown.

Car Operating Panels

Front Return Panel



CBE-C240



Tactile button *1
(Plastic)



CBH-C240



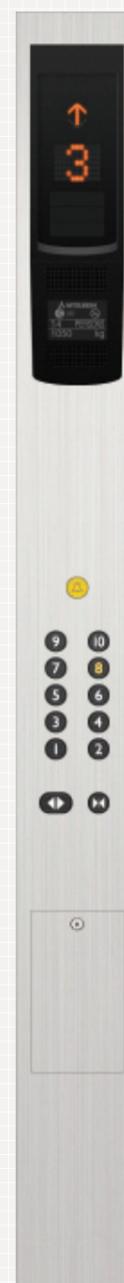
Flat button *2
(Plastic)



CBV-C240



Tactile button *2
(Stainless steel matte)



CBJ-C240



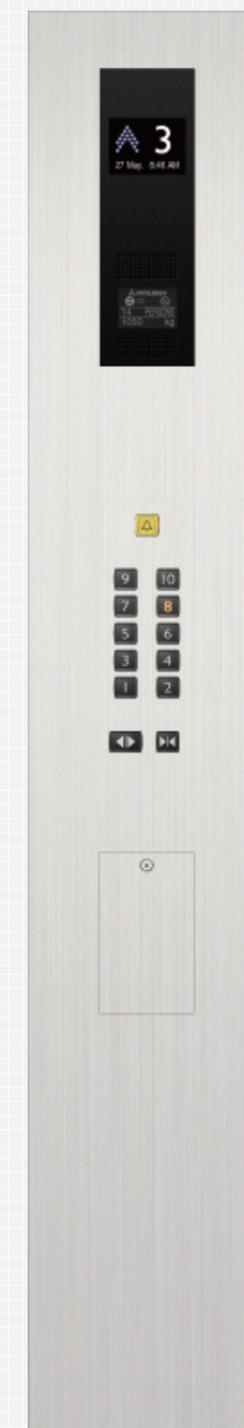
Flat button *2
(Plastic)



CBE-C251
(LCD indicator)



Tactile button *1
(Plastic)



CBE-D221
(Swing type)



Tactile button *1
(Plastic)

Notes:

*1: Flat floor buttons are also available as CBF-C240 / CBF-C251 / CBF-D221.

*2: Please note that flat type (non-tactile) floor buttons and the floor buttons without color contrast cannot be used in countries where regulations such as EN81-70 mandate specific measures for physically disabled passengers.

Actual elevator color may differ slightly from that shown.

Hall Signal Fixtures

Hall Position Indicators and Call Buttons



PIE-A210N Boxless
(Standard)
PIE-A210B
Tactile button *1
(Plastic)



PIE-A220N Boxless
(Standard)
PIE-A220B
Tactile button *1
(Plastic)



PIE-C210N
Tactile button *1
(Plastic)



PIE-C220N
Tactile button *1
(Plastic)



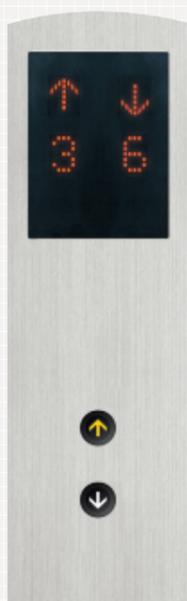
PIV-C210N
Tactile button *2
(Stainless steel matte)



PIV-C220N
Tactile button *2
(Stainless steel matte)



PIJ-C210N
Flat button *2
(Plastic)

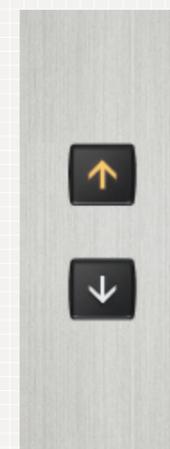


PIJ-C220N
Flat button *2
(Plastic)

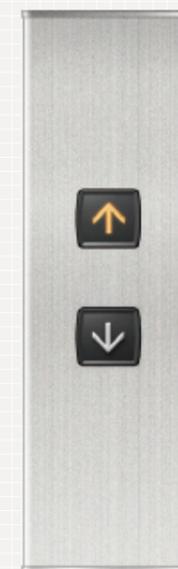
Hall Buttons



HBE-A210N Boxless
HBE-A210B
Tactile button *1
(Plastic)



HBE-C210N
Tactile button *1
(Plastic)



HBE-C260N Boxless
Tactile button *1
(Plastic)



HBV-C210N
Tactile button *2
(Stainless steel matte)



HBJ-C210N
Flat button *2
(Plastic)

Hall Position Indicators



PIH-D410



PIH-D421 Boxless



PID-D410
(Assembled into transom panel)

Hall Lanterns



HLH-A10



HLV-A10

Sectional Image of Boxless Type Boxless

Wall
Wiring hole

Actual dimensions and positions of the faceplate, the box and the wiring hole may differ depending on the type.

Notes:
*1: Flat floor buttons are also available as PIF-A210 / PIF-A220 / PIF-C210 / PIF-C220 / HBF-A210 / HBF-C210 / HBF-C260.
*2: Please note that flat type (non-tactile) floor buttons and the floor buttons without color contrast cannot be used in countries where regulations such as EN81-70 mandate specific measures for physically disabled passengers.

Actual elevator color may differ slightly from that shown.

Features

Feature	Description	1C-2BC	2C-2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
■ OPERATIONAL AND SERVICE FEATURES					
Safe Landing (SFL)	If a car has stopped between floors due to some equipment malfunction, the controller checks the cause, and if it is considered safe to move the car, the car will move to the nearest floor at a low speed and the doors will open.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Next Landing (NLX)	If the elevator doors do not open fully at a destination floor, the doors close, the car automatically moves to the next or nearest floor where the doors will open.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Continuity of Service (COS)	A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.	—	Ⓢ	Ⓢ	Ⓢ
Automatic Bypass (ABP)	A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency.	⓪	Ⓢ	Ⓢ	Ⓢ
Overload Holding Stop (OLH)	A beep, as well as voice guidance, sounds to alert the passengers that the car is overloaded: the doors remain open and the car does not leave that floor until enough passengers exit the car.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Automatic Hall Call Registration (FSAT)	If one car cannot carry all waiting passengers because it is full, another car will automatically be assigned for the remaining passengers.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Car Call Canceling (CCC)	When a car has responded to the final car call in one direction, the system regards remaining calls in the other direction as mistakes and clears them from the memory.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
False Call Canceling — Automatic (FCC-A)	If the number of registered car calls does not correspond to the car load, all calls are canceled to avoid unnecessary stops.	⓪	⓪	⓪	Ⓢ
Car Fan Shut Off — Automatic (CFO-A)	If there are no calls for a specified period, the car ventilation fan will automatically be turned off to conserve energy. Please refer to page 6.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Car Light Shut Off — Automatic (CLO-A)	If there are no calls for a specified period, the car lighting will automatically shut off to conserve energy. Please refer to page 6.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Backup Operation for Group Control Microprocessor (GCBK)	An operation by car controllers which automatically starts to maintain elevator operation, in the event that a microprocessor or transmission line in the group controller has failed.	—	Ⓢ	Ⓢ	Ⓢ
Car Call Erase (FCC-P)	If the wrong car button is pressed, it can be canceled by quickly pressing the same button again twice.	⓪	⓪	⓪	⓪
Out-of-Service-Remote (RCS)	With a key switch on the supervisory panel, etc., a car can be called to a specified floor after responding to all car calls, and then automatically be taken out of service.	⓪	⓪	⓪	⓪
Secret Call Service (SCS-B)	To enhance security, car calls for desired floors can be registered only by entering secret codes using the car buttons on the car operating panel. This function is automatically deactivated during emergency operations.	⓪	⓪	⓪	⓪
Non-Service to Specific Floors — Car Button Type (NS-CB)	To enhance security, service to desired floors can be set to disable using the car operating panel. This function is automatically deactivated during emergency operations.	⓪	⓪	⓪	⓪
Non-Service to Specific Floors — Switch/Timer Type (NS/NS-T)	To enhance security, service to desired floors can be set to disable using a manual or timer switch. This function is automatically deactivated during emergency operations.	⓪	⓪ ^{#1}	⓪	⓪
Out-of-Service by Hall Key Switch (HOS/HOS-T)	For maintenance or energy-saving measures, a car can be taken out of service temporarily with a key switch (with or without a timer) mounted in a specified hall.	⓪	⓪	⓪	⓪
Return Operation (RET)	Using a key switch on the supervisory panel, a car can be withdrawn from group control operation and called to a specified floor. The car will park on that floor with the doors open, and not accept any calls until independent operations begin.	⓪	⓪	⓪	⓪
Attendant Service (AS)	Exclusive operation where an elevator can be operated using the buttons and switches located in the car operating panel, allowing smooth boarding of passengers or loading of baggage.	⓪	⓪	⓪	⓪
Independent Service (IND)	Exclusive operation where a car is withdrawn from group control operation for independent use, such as maintenance or repair, and responds only to car calls.	Ⓢ	Ⓢ	Ⓢ	Ⓢ
Variable Traveling Speed Elevator System (VSE) NEW	According to the number of passengers in the car, the car travels faster than the rated speed. Please refer to page 7 and 8.	⓪	⓪	⓪	⓪
Regenerative Converter (PCNV) NEW	For energy conservation, power regenerated by a traction machine can be used by other electrical systems in the building. Please refer to page 5.	⓪	⓪	⓪	⓪

Feature	Description	1C-2BC	2C-2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
■ GROUP CONTROL FEATURES					
Expert System and Fuzzy Logic	Artificial expert knowledge, which has been programmed using "expert system" and "fuzzy logic", is applied to select the ideal operational rule which maximizes the efficiency of group control operations.	—	—	Ⓢ	Ⓢ
Psychological Waiting Time Evaluation	Cars are allocated according to the predicted psychological waiting time for each hall call. The rules evaluating psychological waiting time are automatically changed in a timely manner in response to actual service conditions.	—	—	Ⓢ	Ⓢ
Cooperative Optimization Assignment	The system predicts a potential hall call, which could give longer waiting time. Car assignment is performed considering not only current and new calls but also near-future call. Please refer to page 11.	—	—	—	Ⓢ
Car Travel Time Evaluation	Cars are allocated to hall calls by considering the number of car calls that will reduce passenger waiting time in each hall and the travel time of each car.	—	—	Ⓢ	Ⓢ
Distinction of Traffic Flow with Neural Networks (NN)	Traffic flows in a building are constantly monitored using neural networks technology, and the optimum operational pattern, such as Lunchtime Service or Up Peak Service, is selected or canceled accordingly at the appropriate time.	—	—	—	Ⓢ
Car Allocation Tuning (CAT)	The number of cars allocated or parked on crowded floors are controlled not just according to the conditions on those crowded floors but also the operational status of each car and the traffic on each floor.	—	—	—	Ⓢ
Dynamic Rule-Set Optimizer (DRO)	Traffic flows in a building are constantly predicted using neural networks technology, and an optimum rule-set for group control operations is selected through real-time simulations based on prediction results. Please refer to page 12.	—	—	—	Ⓢ
Destination Oriented Prediction System (DOAS-S)	When a passenger presses a destination floor button on the hall operating panel, the name of the car to serve that call appears immediately next to the destination floor button. Cars are allocated according to destination floors in order to improve transport efficiency and minimize congestion. (Cannot be combined with IUP.) Please refer to page 12.	—	—	—	⓪ ^{#2}
Peak Traffic Control (PTC)	A floor which temporarily has the heaviest traffic will be served with higher priority over other floors, but not to the extent that it interferes with the service to other floors.	—	—	Ⓢ	Ⓢ
Strategic Overall Spotting (SOHS)	To reduce passenger waiting time, cars which have finished service are automatically directed to positions where they can respond to predicted hall calls as quickly as possible.	—	Ⓢ	Ⓢ	Ⓢ
Intense Up Peak (IUP)	To maximize transport efficiency, an elevator bank will be divided into two groups of cars to serve upper and lower floors separately during up peak. In addition, the number of cars to be allocated, the timing of car allocation to the main floor, the timing of door closing, etc., will be controlled based on predicted traffic data.	—	—	—	⓪
Up Peak Service (UPS)	Controls the number of cars to be allocated to the main floors, as well as the car allocation timing, in order to meet increased demands for upward travel from the main floors during office starting time, hotel check-in time, etc., and minimize passenger waiting time.	—	—	⓪	⓪
Down Peak Service (DPS)	Controls the number of cars to be allocated and the timing of car allocation in order to meet increased demands for downward travel during office leaving time, hotel checkout time, etc., to minimize passenger waiting time.	—	—	⓪	⓪
Forced Floor Stop (FFS)	All cars in a bank automatically make a stop at a pre-determined floor on every trip without being called.	⓪	⓪	⓪	⓪
Main Floor Parking (MFP)	An available car always parks on the main floor with the doors open to reduce passenger waiting time.	⓪	⓪	⓪	⓪
Energy-Saving Operation — Number of Cars (ESO-N)	To save energy, the number of service cars is automatically reduced to some extent but not so much that it adversely affects passenger waiting time. Please refer to page 6.	—	—	⓪	Ⓢ
Energy-Saving Operation — Allocation Control (ESO-W)	When a call is registered, the system controls car assignment considering near-future traveling distance of all elevators to conserve energy. Please refer to page 6.	—	—	—	Ⓢ
Special Floor Priority Service (SFPS)	Special floors, such as floors with VIP rooms or executive rooms, are given higher priority for car allocation when a call is made on those floors. (Cannot be combined with hall position indicators.)	—	—	⓪ ^{#1}	⓪
Closest-Car Priority Service (CNPS)	A function to give priority allocation to the car closest to the floor where a hall call button has been pressed, or to reverse the closing doors of the car closest to the pressed hall call button on that floor. (Cannot be combined with hall position indicators.)	—	—	⓪ ^{#1}	⓪

Notes: • 1C-2BC (1-car selective collective) - Standard, 2C-2BC (2-car selective collective) - Optional
 ΣAI-22 (3 to 4-car group control system) - Optional, ΣAI-2200C (3 to 8-car group control system) - Optional
 • Ⓢ = Standard ⓪ = Optional — = Not applicable
 • #1: Please consult our local agents for the production term, etc.
 • #2: When DOAS-S is applied, SR or Multi-Beam Door Sensor should be applied.

Features

Feature	Description	1C-2BC	2C-2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
Light-Load Car Priority Service (UCPS)	When traffic is light, empty or lightly-loaded cars are given higher priority to respond to hall calls in order to minimize passenger travel time. (Cannot be combined with hall position indicators.)	—	—	⊙ ^{#1}	⊙
Special Car Priority Service (SCPS)	Special cars, such as observation elevators and elevators with basement service, are given higher priority to respond to hall calls. (Cannot be combined with hall position indicators.)	—	—	⊙ ^{#1}	⊙
Congested-Floor Service (CFS)	The number of cars to be allocated to floors where meeting rooms or ballrooms exist & the traffic intensifies for short periods of time, as well as the timing of car allocation, will be controlled according to detected traffic density data for those floors.	—	—	⊙	⊙
Bank-Separation Operation (BSO)	Hall buttons and the cars called by each button can be divided into several groups for independent group control operation to serve special needs or different floors.	—	⊙ ^{#1}	⊙	⊙
VIP Operation (VIP-S)	A specified car is withdrawn from group control operation for VIP service operation. When activated, the car responds only to existing car calls, moves to a specified floor and parks there with the doors open. The car will then respond only to car calls.	—	⊙ ^{#1}	⊙	⊙
Lunchtime Service (LTS)	During the first half of lunchtime, calls for a restaurant floor will be served with higher priority, and during the latter half, the number of cars allocated to the restaurant floor, the allocation timing for each car and the door opening and closing timing are all controlled based on predicted data.	—	—	⊙	⊙
Main Floor Changeover Operation (TFS)	This feature is effective for buildings with two main floors. The floor designated as the "Main floor" in a group control operation can be changed as necessary using a manual switch.	⊙	⊙	⊙	⊙

■ DOOR OPERATION FEATURES

Door Sensor Self-Diagnosis (DODA)	Failure of non-contact door sensors is checked automatically, and if a problem is diagnosed, the door close timing is delayed and the closing speed is reduced to maintain elevator service and ensure passenger safety.	⊙	⊙	⊙	⊙
Automatic Door Speed Control (DSAC)	Door load on each floor, which can depend on the type of hall door, is monitored to adjust the door speed, thereby making the door speed consistent throughout all floors.	⊙	⊙	⊙	⊙
Automatic Door-Open Time Adjustment (DOT)	The time doors are open for will automatically be adjusted, depending on whether the stop was called from the hall or the car, to allow smooth boarding of passengers or loading of baggage.	—	—	—	⊙
Reopen with Hall Button (ROHB)	Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car.	⊙	⊙	⊙	⊙
Repeated Door-Close (RDC)	Should an obstacle prevent the doors from closing, the doors will repeatedly open and close until the obstacle is removed.	⊙	⊙	⊙	⊙
Extended Door-Open Button (DKO-TB)	A button located inside a car which keeps the doors open for a longer than usual period to allow loading and unloading of a stretcher, baggage, etc.	⊙	⊙	⊙	—
Door Nudging Feature — With Buzzer (NDG)	A buzzer sounds and the doors slowly close when they have remained open for longer than the preset period. With AAN-B or AAN-G, a beep and voice guidance sound instead of the buzzer.	⊙	⊙	⊙	⊙
Door Load Detector (DLD)	When excessive door load has been detected while opening or closing, the doors immediately reverse.	⊙	⊙	⊙	⊙
Safety Door Edge (SDE)	One side (CO, 2S doors)	⊙	⊙	⊙	⊙
	Both sides (CO doors only)	⊙	⊙	⊙	⊙
Safety Ray (SR)	1-Beam	⊙	⊙	⊙	⊙
	2-Beam	⊙	⊙	⊙	⊙
Electronic Doorman (EDM)	Door open time is minimized using safety ray(s) or multi-beam door sensors that detect passengers boarding or exiting.	⊙	⊙	⊙	⊙
Multi-Beam Door Sensor	Multiple infrared-light beams cover some 1800mm in height of the doors as they close to detect passengers or objects. (Cannot be combined with SR feature.)	⊙	⊙	⊙	⊙
3D Multi-Beam Door Sensor	Multiple infrared-light beams cover some 1800mm in height of the doors as they close to detect passengers or objects. The 3D sensor can also monitor the hall by expanding multiple infrared-light beams. (Cannot be combined with SR feature.)	⊙	⊙	⊙	⊙

Feature	Description	1C-2BC	2C-2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
■ SIGNAL AND DISPLAY FEATURES					
Sonic Car Button — Click Type (ACB)	A click-type car button which emits electronic beep sounds when pressed to indicate that the call has been registered.	⊙	⊙	⊙	⊙
Car Arrival Chime — Car or Hall (AECC/AECH)	Electronic chimes sound to indicate that a car will soon arrive. (The chimes are mounted either on the top and bottom of the car, or in each hall.)	⊙	⊙	⊙	⊙ (Each floor)
Flashing Hall Lantern (FHL)	A hall lantern, which corresponds to a car's service direction, flashes to indicate that the car will soon arrive.	⊙	⊙	⊙	⊙
Immediate Prediction Indication (AIL)	When a passenger has registered a hall call, the best car to respond to that call is immediately selected, the corresponding hall lantern lights up and a chime sounds once to indicate which doors will open.	—	—	⊙	⊙
Second Car Prediction (TCP)	When a hall is crowded to the extent that one car cannot accommodate all waiting passengers, the hall lantern will light up to indicate the next car to serve the hall.	—	—	—	⊙
Basic Announcement (AAN-B)	A synthetic voice (and/or buzzer) alerts passengers inside a car that elevator operation has been temporarily interrupted by overloading or a similar cause. (Voice available only in English.)	⊙	⊙	⊙	⊙
Voice Guidance System (AAN-G)	Information on elevator service such as the current floor or service direction will be heard by the passengers inside a car. (Voice guidance available only in English.)	⊙	⊙	⊙	⊙
Auxiliary Car Operating Panel (ACS)	An additional car control panel which can be installed for large capacity elevators, heavy traffic elevators, etc.	⊙	⊙	⊙	⊙
Inter Communication System (ITP)	A system which allows communication between passengers inside a car and the building personnel.	⊙	⊙	⊙	⊙
LCD Position Indicator (CID-S)	LCD position indicator mounted inside a car on the car operating panel that indicates the date and time, current car position and travel direction.	⊙ ^{#1}	⊙ ^{#1}	⊙ ^{#1}	⊙ ^{#1}

■ EMERGENCY OPERATIONS AND FEATURES

Mitsubishi Emergency Landing Device (MELD)	Upon power failure, a car equipped with this function automatically moves and stops at the nearest floor using a rechargeable battery, and the doors open to ensure passenger safety. (Maximum allowable floor-to-floor distance is 10 meters.)	⊙	⊙	⊙	⊙
Operation by Emergency Power Source — Automatic/Manual (OEPS)	Upon power failure, the building's emergency power moves and stops pre-determined car(s) at a specified floor, and the doors open to ensure passenger safety. After all pre-determined car(s) have arrived at the floor, normal operation will be available with only pre-determined car(s).	⊙	⊙	⊙	⊙
Fire Emergency Return (FER)	Upon activation of a key switch or a building's fire sensors, all calls are canceled, all cars immediately return to a specified evacuation floor and the doors open to ensure safe passenger evacuation.	⊙	⊙	⊙	⊙
Firefighter's Emergency Operation (FE)	During a fire, when the firefighter's switch is activated, the car calls of a specified car and all hall calls are canceled and the car immediately returns to a pre-determined floor. The car then responds only to car calls which facilitate fire fighting and rescue operations.	⊙	⊙	⊙	⊙
Earthquake Emergency Return (EER-P/EER-S)	Upon activation of primary and/or secondary wave seismic sensors, all cars stop at the nearest floor, and park there with the doors open to facilitate safe evacuation of passengers.	⊙	⊙	⊙	⊙
Supervisory Panel (WP)	A panel installed in a building's supervisory room, etc., which monitors and controls each elevator's status and operations by remote, using indicators and switches which are provided on request.	⊙	⊙ ^{#1}	⊙	⊙ ^{#1}
MeEye (WP-W) Mitsubishi Elevators & Escalators Monitoring and Control System	Each elevator's status and operations can be monitored and controlled using an advanced Web-based technology which provides an interface through personal computers. Special optional features, such as preparation of traffic statistics and analysis, are also available.	⊙	⊙	⊙	⊙
Emergency Car Lighting (ECL)	Car lighting which turns on immediately when power fails to provide a minimum level of lighting within the car. (Choice of dry-cell battery or trickle-charger battery.)	⊙	⊙	⊙	⊙

Notes: • 1C-2BC (1-car selective collective) - Standard, 2C-2BC (2-car selective collective) - Optional
 ΣAI-22 (3 to 4-car group control system) - Optional, ΣAI-2200C (3 to 8-car group control system) - Optional
 • ⊙ = Standard ⊙ = Optional — = Not applicable
 • #1: Please consult our local agents for the production term, etc.

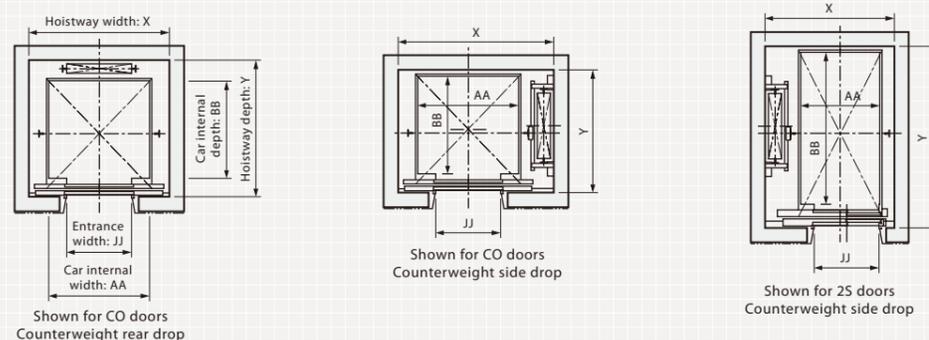
Basic Specifications

Horizontal Dimensions <1-Door 1-Gate (1D1G)> Please refer to page 37 for the horizontal dimensions for 1-Door 2-Gate.

	Code number	Number of persons	Rated capacity (kg)	Door type	Counterweight position	Car internal dimensions (mm) AAxBB	Entrance width (mm) JJ	Minimum hoistway dimensions (mm) XxY				
								Rated speed (m/sec)				
								Maximum travel (m) TR				
								1.0/1.6/1.75/2.0/2.5	2.5	3.0 *5		
							120 *1	150 (More than 120)	150			
EN81-1	P11	11	825	CO	Rear	1400x1350	900	1950x1890	1950x1890	1950x2020		
					Side			2160x1700 *2				
	P14	14	1050	2S	Rear	1600x1400		1100	2000x1940	2030x1990	2030x2070	
					Side				2290x1740 *2			
	P17	17	1275	CO	Rear	2000x1400	1100		2400x1990	2430x1990	2430x2070	
					Side				2690x1770 *3			
	P18	18	1350	CO	Rear	2000x1500		1100	1970x2710			
					Side				2400x2090	2430x2090	2430x2170	
GB code	P10	10	750	CO	Rear	1400x1300	900		2690x1870 *2	1950x1840	1950x1970	
					Side				2140x1690 *2			
	P11	11	825		CO	Rear		1400x1350	900	1950x1890	1950x1890	1950x2020
						Side				2160x1700 *2		
	P12	12	900	CO	Rear	1600x1330	900	2000x1870		2030x1870	2030x2000	
					Side			2290x1690 *2				
	P14	14	1050	CO	Rear	1600x1400		1000	2000x1940	2030x1990	2030x2070	
					Side							
					Rear	1800x1350	1000		2200x1890	2230x1940	2230x2020	
					Side							
	P16	16	1200	CO	Rear	1600x1500	900	2000x2040	2030x2090	2030x2170		
					Side							
	P17	17	1275	2S	Rear	1100x2100		1100	2290x1840 *2			
					Side							
	P18	18	1350	CO	Rear	1800x1500	1000		2200x2090	2230x2090	2230x2170	
					Side							
Rear					2000x1400	1100		2400x1940	2430x1940	2430x2020		
Side												
P18	18	1350	CO	Rear	2000x1500	1000	2400x1990	2430x1990	2430x2070			
				Side								
				Rear	1800x1680		1000	2690x1770 *3				
				Side								

- [Terms of the table]
- The contents of this table are applied to standard specifications only. Please consult our local agents for other specifications.
 - Rated capacity is calculated at 75kg per person, as required by the EN81-1 and GB code.
 - CO: 2-panel center opening doors, 2S: 2-panel side sliding doors.
 - Minimum hoistway dimensions (X and Y) shown in the table are after waterproofing of pit and do not include plumb tolerance.
 - Minimum hoistway dimensions (X and Y) should be increased if fireproof landing door is required.

- Notes:
- *1: Please refer to the table of Vertical Dimensions for detailed requirements of the maximum travel.
 - *2: The depth of the machine room becomes larger by 200mm because of the counterweight installed in a side drop position.
 - *3: The depth of the machine room becomes larger by 300mm because of the counterweight installed in a side drop position.
 - *4: The depth of the machine room becomes larger by 150mm because of the counterweight installed in a side drop position.
 - *5: Minimum hoistway dimensions (X and Y) for the rated speed 3.0 m/sec shown in the table are not applicable to a single hoistway. Please consult our local agents for the single hoistway dimensions.



Vertical Dimensions <1-Door 1-Gate (1D1G) & 1-Door 2-Gate (1D2G)>

Rated speed (m/sec)	Maximum travel (m) TR	Maximum number of floors	Counterweight position	Minimum overhead (mm) OH		Minimum pit depth (mm) PD		Minimum machine room height (mm)	Minimum floor height (mm)
				Rated capacity					
				~1050 (kg)	~1350 (kg)	~1050 (kg)	~1350 (kg)		
1.0	60	36	Rear	4210	4310	1360	1400	2200~*5	2500*6
			Side						
1.6	105		Rear	4380	4480	1390	1430		
	80 (105) *1		Side						
1.75	105	Rear	4410	4510	1430	1470			
	80 (105) *1	Side							
2.0	120	Rear	4620	4720	1490*3	1540*4			
	80 (120) *1	Side							
2.5	120	50	Rear	4700	4800	1840	1890		
	150 *2								
	80 (120) *1	36	Side	4840	4810	2100	2080		
3.0	120	50	Rear	4700	4800	1840	1890		
	150 *2								

- [Terms of the table]
- The contents of this table are applied to standard specifications only. Please consult our local agents for other specifications.

- Notes:
- *1: The values in parenthesis () will be applied only when the car size is "1100 x 2100" of code number P14 and "1200 x 2300" of code number P17.
 - *2: When the travel is 120m or less, please refer to the values for maximum travel of 120m.
 - *3: When the code number is P14, the door type is 2S, and the travel exceeds 105m or more but less than 120m, the minimum pit depth requires 1670mm.
 - *4: When the code number is P17, the door type is 2S, and the travel exceeds 105m or more but less than 120m, the minimum pit depth requires 1760mm.
 - *5: Some specifications require more than 2200mm as a minimum machine room height. Please consult our local agents for the appropriate machine room height.
 - *6: Some specifications require more than 2500mm as a minimum floor height. Please consult our local agents if the floor height is less than entrance height HH + 700mm, and the elevator is 1-Door 2-Gate.

Specifications for Variable Traveling Speed Elevator System (Optional)

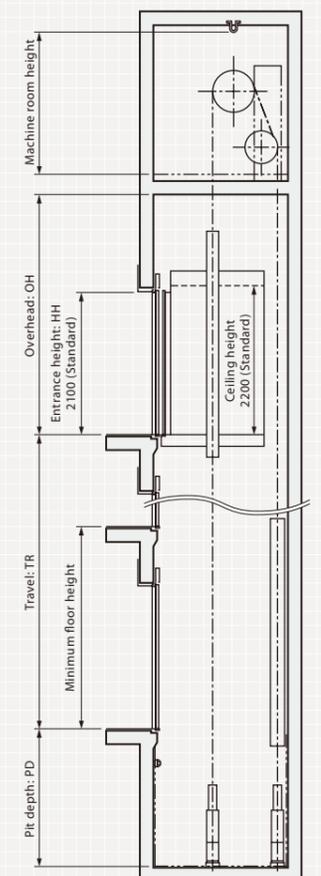
<1-Door 1-Gate (1D1G) & 1-Door 2-Gate (1D2G)>

Rated speed (m/sec)	Speeds (m/sec)	Minimum overhead (mm) OH		Minimum pit depth (mm) PD	
		~1050 (kg)	~1350 (kg)	~1050 (kg)	~1350 (kg)
1.6	1.6/2.0/2.5				
1.75	1.75/2.0/2.5	4700	4800	1840	1890
2.0	2.0/2.5				

- [Terms of the table]
- Variable Traveling Speed Elevator System (VSE) is applicable to elevators with the rated speeds: 1.6, 1.75 and 2.0 (m/sec) only.
 - Except minimum overhead and pit depth dimensions (OH and PD), specifications shown in tables: Horizontal Dimensions and Vertical Dimensions, are applicable to Variable Traveling Speed Elevator System.

Applicable Standards

NexWay-S complies with the EN81-1 or GB code. It can also comply with other national regulations. Please consult our local agents for details.



Basic Specifications

Horizontal Dimensions <1-Door 2-Gate (1D2G)>

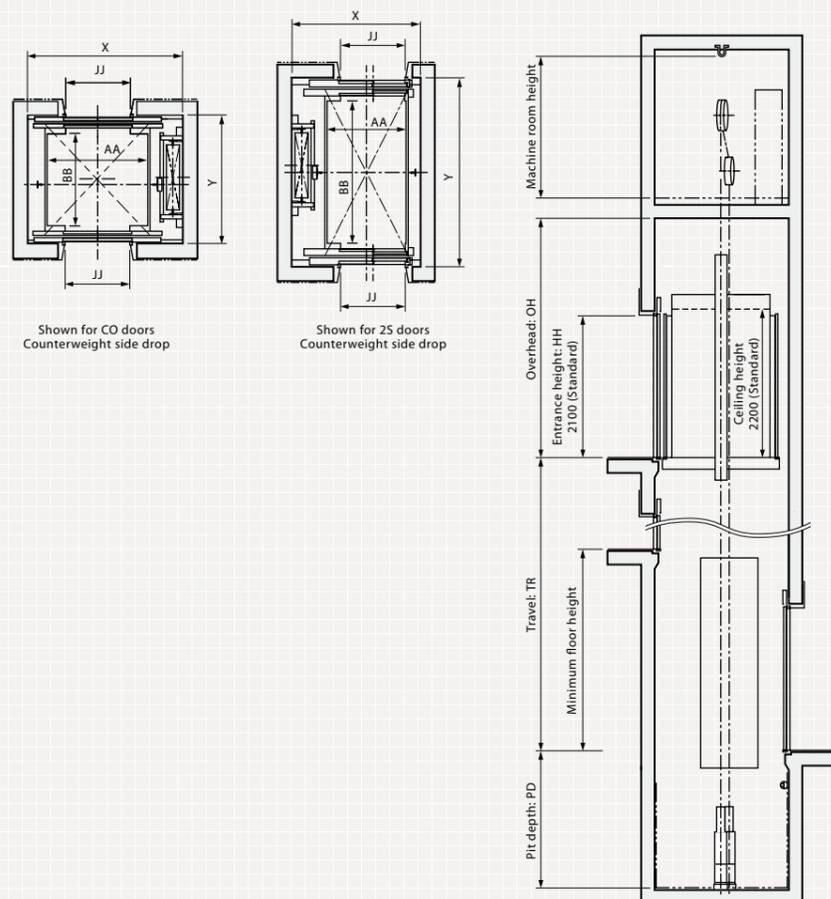
EN81-1 & GB code	Code number	Number of persons	Rated capacity (kg)	Door type	Counterweight position	Car internal dimensions (mm) AAxBB	Entrance width (mm) JJ	Minimum hoistway dimensions (mm) XxY	
								Rated speed (m/sec)	
								1.0/1.6/1.75/2.0/2.5	
								Maximum travel (m) TR	
		120							
EN81-1 & GB code	P11	11	825	CO	Side	1400x1300	900	2160x1810*2	
	P14	14	1050			1600x1400		2290x1910*1	
	P17	17	1275	2S		1100x2100	1790x2754*3		
				CO		2000x1380	2690x1890*2		
				2S		1200x2250	1970x2904		
P18	18	1350	CO	2000x1450	2690x1960*1				

[Terms of the table]

- Rated capacity is calculated at 75kg per person, as required by the EN81-1 and GB code.
- CO: 2-panel center opening doors, 2S: 2-panel side sliding doors.
- Minimum hoistway dimensions (X and Y) are after waterproofing of pit and do not include plumb tolerance.
- Minimum hoistway dimensions (X and Y) are applied to standard specifications only.
- Minimum hoistway dimensions (X and Y) should be increased if fireproof landing door is required.

Notes:

- *1: The depth of the machine room becomes larger by 200mm because of the counterweight installed in a side drop position.
- *2: The depth of the machine room becomes larger by 300mm because of the counterweight installed in a side drop position.
- *3: The width of the machine room becomes larger by 50mm because of the counterweight installed in a side drop position.



Please refer to page 36 for the vertical dimensions and the specifications for Variable Traveling Speed System Elevator.

Important Information on Elevator Planning

Work Not Included in Elevator Contract

The following items are excluded from Mitsubishi Electric's elevator installation work, and are therefore the responsibility of the building owner or general contractor:

- Construction of the elevator machine room with proper beams and slabs, equipped with a lock, complete with illumination and ventilation.
- Access to the elevator machine room sufficient to allow passage of the control panel and traction machine.
- Architectural finishing of the machine room floor, and the walls and floors in the vicinity of the entrance hall after installation has been completed.
- Construction of an illuminated, ventilated and waterproofed elevator hoistway.
- A ladder to the elevator pit.
- Provision for cutting the necessary openings and joists.
- Separate beams, when the hoistway dimensions markedly exceed the specifications, and intermediate beams when two or more elevators are installed.
- All other work related to building construction.
- The machine room power-receiving panel and the electrical wiring for illumination, plus the power from them to the electrical room.
- The laying of conduits and wiring between the elevator pit and the terminating point for the devices installed outside the hoistway, such as the emergency bell, intercom, monitoring and security devices, etc.
- The power consumed in installation work and test operations.
- The test provision and subsequent alteration as required, and eventual removal of the scaffolding as required by the elevator contractor, and any other protection of the work as may be required during progress.
- The provision of a suitable, locked space for the storage of elevator equipment and tools during elevator installation.
- The security system, such as a card reader, connected to Mitsubishi Electric's elevator controller, when supplied by the building owner or general contractor.

* Work responsibilities in installation and construction shall be determined according to the local laws. Please consult our local agents for details.

Elevator Site Requirements

- The temperature of the machine room and elevator hoistway shall be below 40°C.
- The following conditions are required for maintaining elevator performance.
 - The relative humidity shall be below 90% on a monthly average and below 95% on a daily average.
 - The machine room and the elevator hoistway shall be finished with mortar or other materials so as to prevent concrete dust.
- Voltage fluctuation shall be within a range of +5% to -10%.

Ordering Information

Please include the following information when ordering or requesting estimates:

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



Mitsubishi Electric Inazawa Works has acquired ISO 9001 certification by the International Standards Organization (ISO) based on a review of quality management for the System. The plant has also acquired the environmental management system standard ISO 14001 certification.

INTERNATIONAL NETWORK

Inquiries and orders should be directed to the following offices (the product may not be available for sale in some countries) :

Country/Area	Company/Telephone/Fax/Address	Country/Area	Company/Telephone/Fax/Address
China	Mitsubishi Elevator Hong Kong Co., Ltd. Tel: 852-2510-1004 / Fax: 852-2570-3835 7F., 321 Java Road, North Point, Hong Kong Shanghai Mitsubishi Elevator Co., Ltd. Tel: 86-21-64303030 / Fax: 86-21-64300932 811 Jiang Chuan Road, Minhang, Shanghai 200245, P.R.C.	Saudi Arabia	Mitsubishi Electric Saudi Ltd. Tel: 966-1-477-7947 / Fax: 966-1-477-7950 P.O. Box 2391, Riyadh 11451, Saudi Arabia Tel: 966-2-650-3513 / Fax: 966-2-650-3519 Saudi Business Center 9th Fl., Medinah Road, P.O. Box 14166, Jeddah 21424, Saudi Arabia
Hong Kong	Mitsubishi Elevator Hong Kong Co., Ltd. Tel: 852-2510-1663 / Fax: 852-2503-2284 (Hong Kong) Tel: 852-2510-1022 / Fax: 852-2503-2284 (Macau) 7F., 321 Java Road, North Point, Hong Kong	Egypt	MELCO-MEC Egypt for Elevators & Escalators Tel: 20-2-3336-1373 / Fax: 20-2-3748-5302 4 Hayed A1-Tadrees Square, Dokki, Giza, Egypt
Macau		Kenya	Mits Electrical Company Ltd. Tel: +254-20-4348340/2157936/2163912 / Fax: +254-20-4349331 Convent Drive, No.45, Livington, P.O. Box 76187, 00508, Nairobi, Kenya
Taiwan	Taiwan Mitsubishi Elevator Co., Ltd. Tel: 886-2-2733-5353 / Fax: 886-2-2733-6953 Chung-Ling Building, No. 363, Sec. 2, Fu-Hsing S. Rd., Taipei, Taiwan, R.O.C.	South Africa	Melco Elevator (S.A.) (PTY) Ltd. Tel: 27-11-392-3330 / Fax: 27-11-392-3335 P.O. Box 1328, Bramley, Johannesburg 2018, South Africa
Korea	Mitsubishi Elevator Korea Co., Ltd. Tel: 82-2-6670-2051 / Fax: 82-2-6670-2060 9 Floor, Machinery Complex Annex, 13-6, Youido-dong, Youngdungpo-gu, Seoul 150-870, Korea	U.S.A.	Mitsubishi Electric and Electronics USA, Inc., Elevator & Escalator Division Tel: 1-714-220-4700 / Fax: 1-714-220-4812 5665 Plaza Drive, Cypress, California 90630, U.S.A.
Philippines	International Elevator & Equipment, Inc. Tel: 63-2-842-3161 / Fax: 63-2-842-3160 KM. 23 West Service Road, South Superhighway, Cupang, Muntinlupa, Metro Manila, Philippines	Mexico	Mitsubishi Electric de Mexico, S.A. de C.V. Tel: 52-55-9171-7600 / Fax: 52-55-9171-7698 Mariano Escobedo No.69 COL. Zona Industrial, Tlalhepantla, Edo. de Mexico, C.P.54030, Mexico
Malaysia	Ryoden (Malaysia) Sdn. Bhd. Tel: 60-3-7788-3003 / Fax: 60-3-7782-7807 No. 42, Jalan Penchala, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia	Guatemala	Ascensores, S.A. Tel: 502-2385-5946 / Fax: 502-2385-5947 20 Ave. 0-43, Zona 15 Vista Hermosa II, Guatemala City, Guatemala C.A.
Singapore	Mitsubishi Elevator (Singapore) Pte. Ltd. Tel: 65-6842-5678 / Fax: 65-6748-2292 No. 11 Kaki Bukit Crescent, Kaki Bukit Techpark 1, Singapore 416241	Honduras	Inelec, S. de R.L. Tel: 504-232-1069 / Fax: 504-232-0402 Colonia Florencia Sur, Segunda Calle, Casa #4353, Contiguo a la Residencia del Embajador de Peru, Tegucigalpa, Honduras C.A.
Indonesia	P.T. Mitsubishi Jaya Elevator and Escalator Tel: 62-21-319-28100 / Fax: 62-21-3903931/3903930 Gedung Jaya 11th Floor Jl. M. H. Thamrin No. 12, Jakarta Pusat, P.O. Box 2584 JKP 10025, Indonesia	Costa Rica	Agencias Generales, S.A. Tel: 506-293-6969 / Fax: 506-239-5036 100mts. Norte Conservatorio Castella, Edificio Tres Torres No. 24, Km. 7 Autopista General Cañas, P.O. Box. 321-1000, San Jose, Costa Rica
Vietnam	Melco Elevator Vietnam Co., Ltd. Tel: 84-8-3970-7261 / Fax: 84-8-3970-3992 8 Cu Xa Tu Do, Cach Mang Thang Tam, Ward 7, Tan Binh Dist., Ho Chi Minh City, Vietnam Toan Tam Engineering Co., Ltd. Tel: 84-8-3977-0026 / Fax: 84-8-3865-3221 58 Cu Xa Tu Do, Cach Mang Thang Tam, Ward 7, Tan Binh District, Ho Chi Minh City, Vietnam Thang Long Elevator & Equipment Co., Ltd. Tel: 84-4-3978-3799 / Fax: 84-4-3978-3800 105 Bui Thi Xuan St., Hai Ba Trung Dist, Hanoi, Vietnam	Panama	Instalaciones Electro-mecanicas S.A. Tel: 507-217-3422/3665 / Fax: 507-217-3669 Urbanizacion Industrial Calle C, Juan Diaz, Apartado 8030, Zona 7, Panama, Republica de Panama
Thailand	Worachak International Co., Ltd. Tel: 66-2-312-0707/0808 / Fax: 66-2-312-0800 10th & 12th Floor Bangna Tower A, 2/3 Moo 14 Bangna-Trad Road KM6.5, Bangkaew, Bangplee, Samutprakarn 10540, Thailand	Republica Dominicana	San Miguel & Cia, C. por A. Tel: 1-809-541-5000 / Fax: 1-809-541-6833 C/Pena Battle No.165 Villa Juana, Santo Domingo, Republica Dominicana Aptdo. Postal No. 20106
Myanmar	Serge Pun & Associates (Myanmar) Limited Tel: 95-1-240-363/246-886 / Fax: 95-1-246-881/882 FMI Centre, 10th & 11th Floor, 380, Bogyoke Aung San Road, Pabedan Township, Yangon, Myanmar	Colombia	Melco de Colombia Ltda. Tel: 57-1-326-7300 / Fax: 57-1-347-8811/8836 Calle 72 No.10-07 Piso 14 Edificio Liberty Seguros, Bogota, D.C., Colombia P.O. Box Apartado Postal 29653
Sri Lanka	ETA MELCO ENGINEERING (PTE) LTD. Tel: 94-11-5350000 / Fax: 94-11-5341299 No. 464, 01 st & 05 th Floors, Galle Road, Colombo - 03, Sri Lanka	Ecuador	Coheco Cia. Ltda. Tel: 593-2-24-34-820 / Fax: 593-2-24-67-644 Av. de Los Naranjos N44-421 y Av. de Los Granados, Quito, Ecuador
U.A.E.	ETA MELCO Elevator Co. LLC Tel: 971-4-2359595 / Fax: 971-4-2725121 Post Box No.11058, ETA STAR House, 5 th Floor, Salahuddin Road, Deira, Dubai, U.A.E. Emirates Technical Associates Tel: 971-2-6767597 / Fax: 971-2-6717180 Al Ferdous Tower(Bank of Fujairah bldg) 14 th floor - 1401-1404, Abu Dhabi, U.A.E.	Peru	Trianon Ascensores S.A Tel: 51-1- 241-6405/511-98-155-158 (Nextel) / Fax: 51-241-6404 Av. Republica de Panama 4125, Surquillo, Lima 34, Peru
Qatar	Electromec Technical Associates Tel: 974-4328309 / Fax: 974-4321746 Post Box # 6320, Al Jaber Tower, Building No.10116 Flat No.3 & 4, 3rd Floor, Al Muthaf Street [Al Salata Al Qadeem], Doha, Qatar	Chile	Heavenward Ascensores S.A. Tel: 56-2-731-8000 / Fax: 56-2-339-7196 Av. Nueva Tajamar 481, Torre Norte oficina 1001, Las Condes, Santiago, Chile
Oman	ETAMELCO CO LTD Tel: 968-24700271 / Fax: 968-24700273 PO: 510/PC:100, Muscat, Oman	Argentina	Ascensores Heavenward S.A. Tel: 54-11-4314-3334 / Fax: 54-11-4314-3520 Av. Cordoba 333-P.2 (1054), Buenos Aires, Argentina
Kuwait	ETA Engineering & Elevator Co.W.L.L. Tel: +965-22441750 / Fax: +965-22441745 P.O. Box 829, Souk Dakhilli 15259, Kuwait	Venezuela	C.A. Venezolana de Ascensores Tel: 58-212-2026611/2026520 / Fax: 58-212-2026522 Edif. Centro Berimer, Torre Oeste, Nivel Cavenas, Final Calle Vargas Boleita Norte, Caracas, Venezuela
Turkey	Eta Melco Dis Ticaret Ltd. Sti. Tel: 90-212-275-12-00 / Fax: 90-212-274-82-81 Esentepe Mahallesi Matbuat sokak, Number: 21/2 Sisli/ Istanbul, Turkey	The Netherlands, Belgium, Luxemburg Norway	Mitsubishi Elevator Europe B.V. Tel: 31-318-586-586 / Fax: 31-318-522-066 Postbus 235 3900 AE Veenendaal, The Netherlands Uniheis As. Tel: 47-22-68-08-60 / Fax: 47-22-68-08-68 Oslo Gate 20 - 0192, Oslo, Norway
Cyprus	Cylift & Equipment Ltd. Tel: 357-22-793322 / Fax: 357-22-431534/438995 21 Markos Drakos Avenue, Pallouriotissa, P.O. Box 29078, CY-1621, Nicosia, Cyprus	France	Ascenseurs Mitsubishi France S.A.S. Tel: 33-1-55-66-08-55 / Fax: 33-1-55-66-08-50 Immeuble Le Narval - Batiment C 27 Rue Des Hautes Patures, 92737 Nanterre Cedex, France
Bahrain	Syscon Trading & Mechanical Services Co., WLL Tel: 973-17-225-751 / Fax: 973-17-224-231 P.O. Box 5278, Bahrain	U.K.	Mitsubishi Electric Europe Lift and Escalator Division Tel: 44-20-7511-5664 / Fax: 44-20-7511-5406 Unit 8, Electra Park, Bidder Street, Canning Town, London E16 4ES England
Lebanon	Mitsulift & Equipment S.A.L. Tel: 961-4-542803 / Fax: 961-4-542808 Abillama Bldg., 1st Floor Street 45, Dbayeh-Metn 2502-7207, Lebanon	Spain	FAIN Ascensores Tel: 34-91-779-1170 / Fax: 34-91-779-1173 Depto Commercial-Obra Nueva, Puerto de Pozazal 29, 28031, Madrid, Spain
		Greece	Mitsulift Hellas SA Tel: 30-210-9401825/9400848 / Fax: 30-210-9412465 82 Grammou & Artemidos Street Moschato Athens 183 45, Greece
		Ireland	Ennis Lifts Ltd. Tel: 353-65-682-0226 / Fax: 353-65-682-0029 Elevation Business Park, Clonroad, Ennis, Co. Clare, Ireland

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 **Safety Tips:** Be sure to read the instruction manual fully before using this product.

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