



**mitsubishi  
ELECTRIC**

PASSENGER ELEVATORS  
(STANDARD MACHINE ROOM SYSTEM)  
Series-AW

*Changes for the Better*

Quality  
in Motion



**NexWay-S**

# Our Global Standards for Passenger Elevators

## Advanced Group Control System

Available with Standard Models  
for Increased Number of Cars (up to 8 cars)

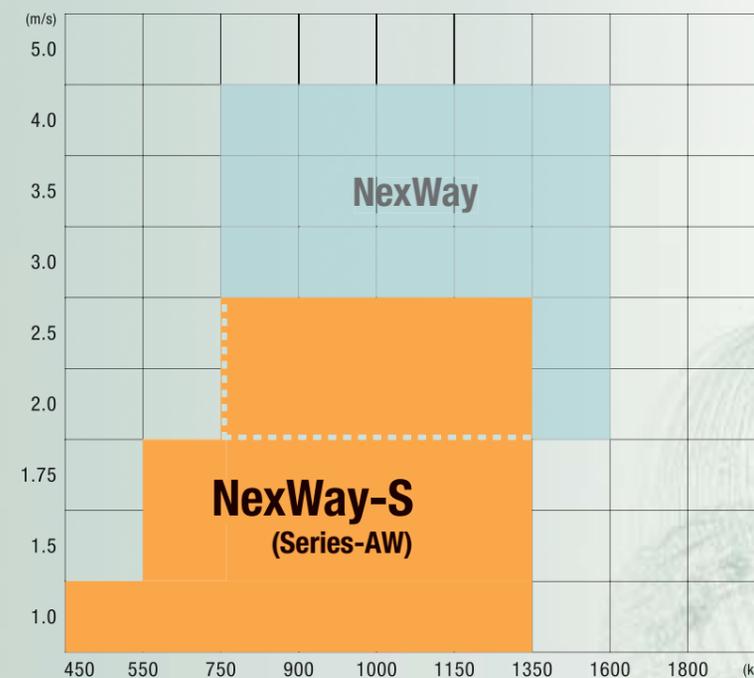
## Elevator Cars in Universal Designs

For the Convenience of Every Passenger

### CONTENTS

Group Control	p.3-4	Profile
Universal Design	p.5-6	
Car and Hall Design	p.7-8	Design
Table of Features	p.9-10	Features
Basic Specifications	p.11-12	Spec.
Important Information on Elevator Planning	p.13	Info.

### APPLICATION



## AI NEURAL NETWORKS

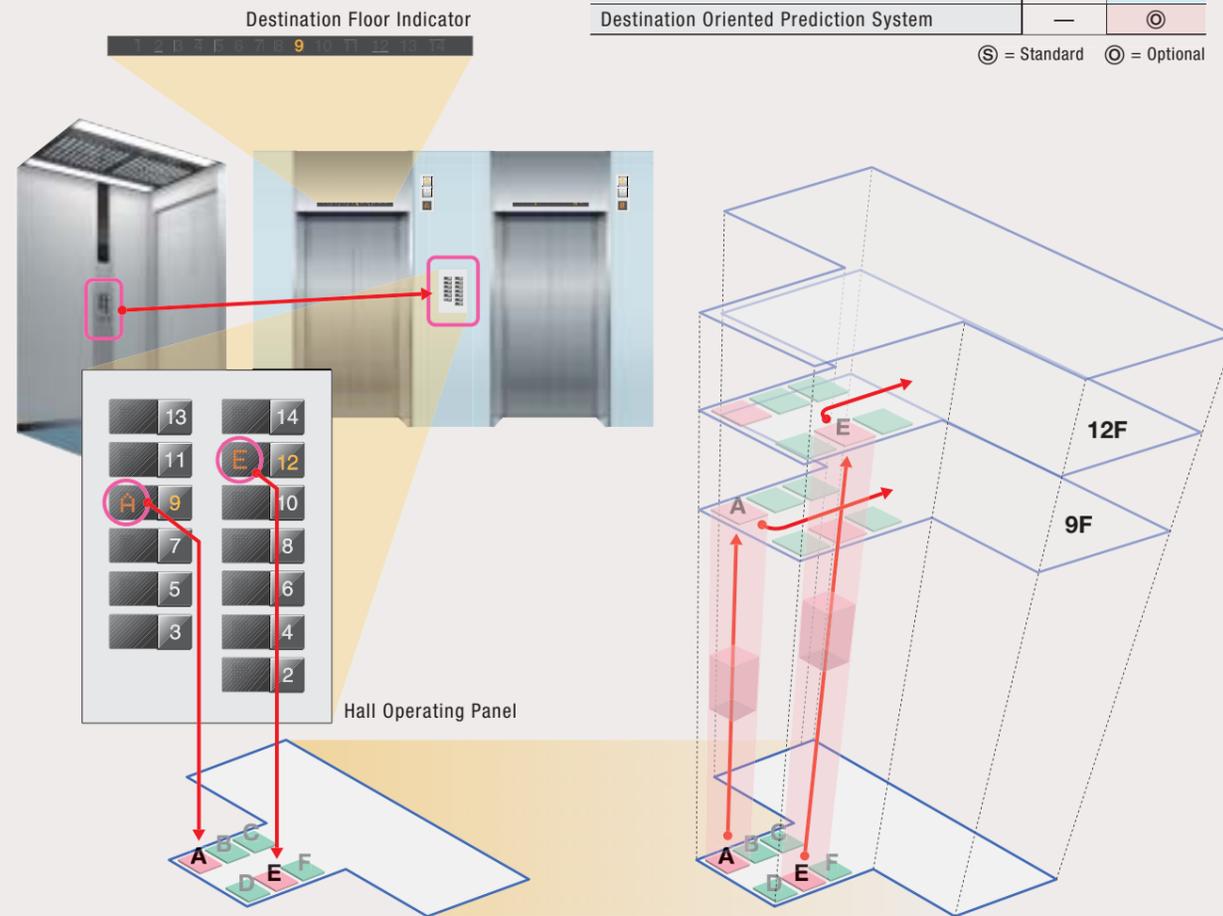
Mitsubishi Electric's group elevator control systems are always evolving, seeking the best solutions to ease the frustrations of waiting for an elevator. To optimize the efficiency of elevator service, Mitsubishi has adopted several logic systems based on Neural Networks\*1 with AI\*2 technology, thereby enhancing transport efficiency and successfully reducing passengers' waiting time. To further maximize elevator services, Mitsubishi has prepared a wide range of routines to judge and select the best service pattern.

There are two systems available depending on the type of building.

- ΣAI-22 for small or medium buildings with 2 to 4 cars
- ΣAI-2200 for large buildings with 3 to 8 cars

Description	ΣAI-22	ΣAI-2200
Expert System and Fuzzy Logic	Ⓢ	Ⓢ
Psychological Waiting Time Evaluation	Ⓢ	Ⓢ
Strategic Overall Assignment	Ⓢ	Ⓢ
Immediate Prediction Indication	Ⓢ	Ⓢ
Distinction of Traffic Flow with Neural Networks	—	Ⓢ
Car Allocation Tuning	—	Ⓢ
Dynamic Rule-set Optimizer	—	Ⓢ
Destination Oriented Prediction System	—	Ⓢ

Ⓢ = Standard Ⓢ = Optional



Notes  
 \*1: Neural network is a mathematical model that emulates the structure of the nerves and cells of the human brain and its information processing mechanisms.  
 \*2: Abbreviation of "artificial intelligence".  
 \*3: Available only for ΣAI-2200.

## Dynamic Rule-Set Optimizer\*3

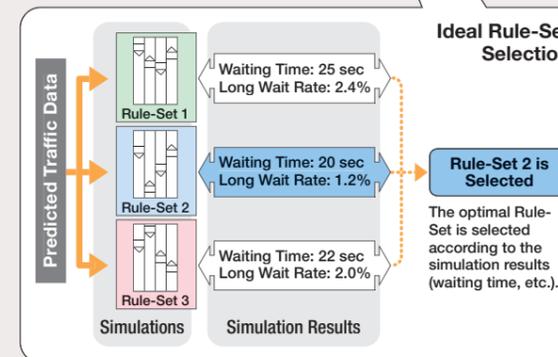
### Elevator control (car allocation) by ideal Rule-Set

Use of Neural Networks technology has enabled the system to predict passenger traffic within intervals of several minutes for continual and accurate forecasting. A high speed RISC (Reduced Instruction Set Computer) runs real-time simulations with multiple Rule-Sets\*4 and the predicted traffic, in order to select the Rule-Set which optimizes transport efficiency.

### Example of Rule-Set selection with real-time simulation

The diagram below shows an example during a morning up peak time, where an ideal Rule-Set is selected every few minutes according to the traffic conditions in the building.

### Performance Results of Each Rule-Set (Average Waiting Time)

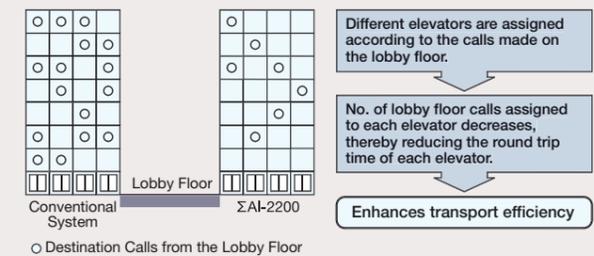


\*4: Rules to allocate cars necessary for group control.  
 \*5: Up to 8 hall operating panels can be installed at main floor only for one group control system.  
 \*6: Previous Mitsubishi group control system.

## Destination Oriented Prediction System\*3

### Immediate indication of the elevator to serve

When a passenger presses a destination floor button on the hall operating panel, an elevator letter will immediately appear next to the destination floor button in order to inform the passenger which elevator to board. The Destination Oriented Prediction System analyzes the number of calls made by the hall operating panel(s)\*5 and their destinations, in order to minimize the passengers' travel time. Thus, the transport efficiency can be enhanced dramatically, especially during peak times. Passengers do not need to press the floor buttons once they board the elevator, as the destinations requested on the floor have already been registered.



### ΣAI-2200 Performance



Simulation example  
 • 15 persons and 4 cars  
 • 2.5 m/sec  
 • 16 stops  
 • With Destination Oriented Prediction System\*3

## PASSENGER-FRIENDLY

Mitsubishi Electric has taken every step to provide all elevator passengers with a safer, more comfortable ride. We design our elevators with the following seven universal design\* principles.

- Equitable Use (E)      •Tolerance for Error (T)
- Flexibility in Use (F)      •Low Physical Effort (L)
- Simple and Intuitive Use (SI)      •Size and Space for Approach and Use
- Perceptible Information (P)



### 1 Larger Indicator (P)(L)

Our new indicators are made more viewable, approximately 1.6 times larger than our previous ones.



### 2 Tactile Buttons (E)(F)

The tactile buttons have been redesigned for enhanced operability for every passenger including those visually impaired. With the new numeral design and attractive color contrast, passengers can easily recognize which button to press. Besides this new appearance, the numeral on each button is embossed, so that visually impaired passengers can easily locate the correct button with a simple touch.



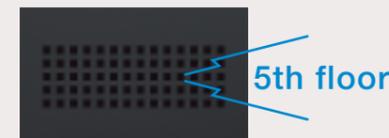
### 3 Larger Door Open Button (F)(SI)(P)(T)

Our “easy-to-use” door open button is approximately 1.6 times larger than before, so that passengers will not press the door close button by mistake.



### 4 Voice Guidance System (optional) (E)(SI)(P)

The Voice Guidance System narrates information such as elevator traveling direction, floors to serve, etc.



### 5 Glass Windows (optional) (T)

Both car and hall doors equipped with tempered glass windows\* allow passenger(s) to be seen from outside the elevator, thus enhancing their security.

Note: \*Recommended at all floors.



### 6 Full-height Mirror (optional) (T)(L)

A stainless steel mirror is available for car interior panels. When installed in the center of the rear wall, wheelchair users exiting from the elevator can visually check for obstacles behind them.



### 7 Thicker Handrails (optional) (F)(L)

The handrails have been made thicker (38mm in diameter) so that passengers can hold the handrails securely through out their travel in the elevator.





Front Return Panel only

**CBE-C240**



Micro stroke click button



**E-102** Narrow Jamb

- Jamb** - Painted steel sheet (Y051)
- Doors** - Painted steel sheet (Y051)
- Hall position indicator and call button** - PIE-A210  
/ Stainless steel hairline with dark gray plastic case



**PIE-A210**  
Micro stroke click button

## S11

- Lighting** - Milky white globe (plastic cover made of resin)
- Ceiling** - Painted steel sheet (Y031)
- Walls** - Painted steel sheet (Y071)
- Transom panel** - Painted steel sheet (Y071)
- Doors** - Painted steel sheet (Y071)
- Front return panels** - Painted steel sheet (Y071)
- Kickplate** - Painted steel sheet (Y055)
- Flooring** - Durable vinyl tiles (PR18)
- Car operating panel** - CBE-C240 / Stainless steel hairline

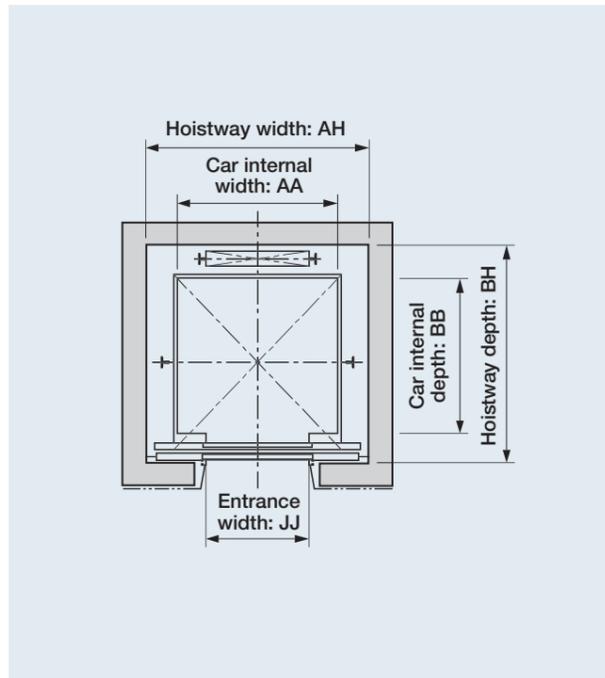
# Table of Features

Feature	Description	2BC	ΣAI-22	ΣAI-2200
<b>■ OPERATIONAL AND SERVICE FEATURES</b>				
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. (Optional in case of 1-car 2BC system.)	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	Ⓢ
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.	⓪	⓪	Ⓢ
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.	⓪	⓪	Ⓢ
Backup Operation for Group Control Microprocessor (GCBK)	An operation by car controllers automatically starts to maintain elevator operation, in the event that a microprocessor or transmission line in the group controller has failed.	—	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ	Ⓢ
<b>■ GROUP CONTROL FEATURES</b>				
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.	—	Ⓢ	Ⓢ
Strategic Overall Assignment	The system predicts near-future car positions and hall calls. Car assignment is performed considering not only current but also these predicted data.	—	Ⓢ	Ⓢ
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 cancelled 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.	—	—	Ⓢ

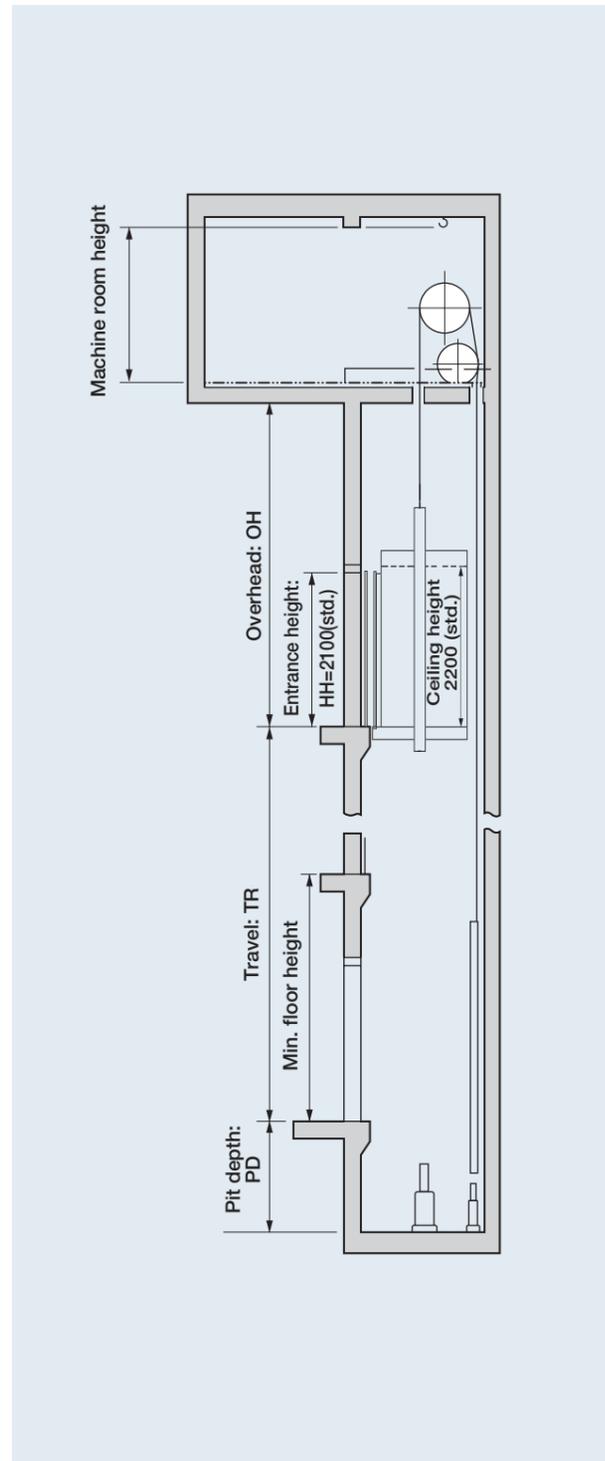
Feature	Description	2BC	ΣAI-22	ΣAI-2200
Peak Traffic Control (PTC)	A floor which temporarily has the heaviest traffic will be served with higher priority over other floors, but not to the extent that it interferes with the service to other floors.	—	Ⓢ	Ⓢ
Strategic Overall Spotting (SOHS)	To reduce passenger waiting time, cars which have finished service are automatically directed to positions where they can respond to predicted hall calls as quickly as possible.	—	Ⓢ	Ⓢ
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.	—	⓪	Ⓢ
<b>■ DOOR OPERATION FEATURES</b>				
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)	The system monitors the actual door load conditions at each floor and automatically adjusts the door speed and torque accordingly.	Ⓢ	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ	Ⓢ
Door Nudging Feature -Without Buzzer (KNDG)	The doors slowly close when they have remained open for longer than the preset period.	Ⓢ	Ⓢ	Ⓢ
Door Load Detector (DLD)	When excessive door load has been detected while opening or closing, the doors immediately reverse.	Ⓢ	Ⓢ	Ⓢ
Safety Ray (SR)	1-Beam	Ⓢ	Ⓢ	Ⓢ#
	2-Beam	⓪	⓪	⓪#
<b>■ SIGNAL AND DISPLAY FEATURES</b>				
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.)	⓪	⓪	Ⓢ (each floor)
Flashing Hall Lantern (FHL)	A car's hall lantern, which corresponds to the car's service direction, flashes to indicate that the car will soon arrive.	⓪	⓪	Ⓢ
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.)	⓪	⓪	Ⓢ

Notes: Ⓢ = Standard ⓪ = Optional — = Not applicable  
 # = When DOAS is applied, AIL and SR (or Multi-Beam Door Sensor) are to be applied as a standard.

## Hoistway Plan



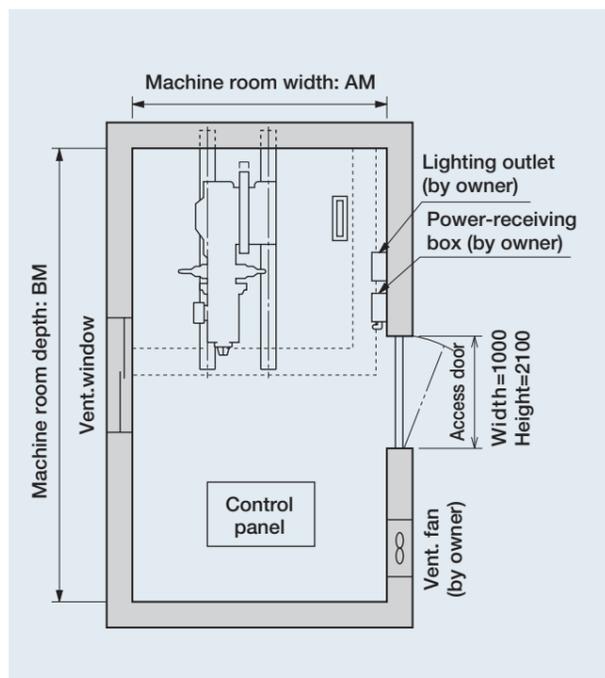
## Hoistway Section



## Capacity, Speed, Door Type, Car Internal Dimensions & Hoistway Dimensions & Machine Room Dimensions

Code number *1	Number of persons *2	Rated capacity (kg)	Rated speed (m/sec)	Car internal AAxBB	Entrance width JJ	Dimensions (mm)				
						Minimum hoistway AHxBH *3, *4		Minimum machine room AMxBM *3		
						TR<=80m	TR>80m	TR<=80m	TR>80m	
JAPAN code *5	P6-CO	6	450	1.0	1400x850	800	1750x1400	-	2000x3250	-
	P8-CO	8	550	1.0	1400x1030	800	1750x1590	-	2000x3350	-
				1.5					2000x3600	-
	P9-CO	9	600	1.0	1400x1100	800	1750x1660	-	2000x3550	-
				1.5					2000x3600	-
	P10-CO	10	700	1.0	1400x1250	800	1750x1810	-	2000x3650	-
				1.5					2000x3650	-
	P11-CO	11	750	1.0	1400x1350	800	1750x1910	1800x1960	2000x3700	2000x3750
				1.5					2000x3750	2000x3800
				1.75					2100x3700	2100x3750
				2.0					2100x3750	2100x3800
	P13-CO	13	900	1.0	1600x1350	900	2050x1910	2100x1960	2100x3700	2100x3750
1.5				2100x3750					2100x3800	
1.75				2100x3750					2100x3800	
2.0				2100x3750					2100x3800	
2.5				2100x3750					2100x3800	
2.5				2100x3750					2100x3800	
P15-CO	15	1000	1.0	1600x1500	900	2050x2060	2100x2110	2100x3850	2100x3900	
			1.5					2300x3700	-	
			1.75					2300x3700	2300x3750	
			2.0					2300x3700	2300x3750	
			2.5					2300x3750	2300x3800	
			2.5					2300x3750	2300x3800	
P17-CO	17	1150	1.0	1800x1500	1000	2250x2110	2300x2160	2300x3900	2300x3950	
			1.5					2300x3900	2300x3950	
			1.75					2300x3900	2300x3950	
			2.0					2300x4000	2300x4050	
			2.5					2300x4000	2300x4050	
			2.5					2300x4000	2300x4050	
P20-CO	20	1350	1.0	1800x1700	1000	2250x2310	2300x2360	2300x4100	2300x4150	
			1.5					2300x4100	2300x4150	
			1.75					2300x4100	2300x4150	
			2.0					2300x4100	2300x4150	
			2.5					2300x4100	2300x4150	
			2.5					2300x4100	2300x4150	

## Machine Room Plan



## Specifications

JAPAN code *5	Speed	1.0 m/sec	1.5 m/sec	1.75 m/sec	2.0 m/sec	2.5 m/sec
		Overhead: OH (mm) *3	~900kg ~1350kg	4400 4500	4600 4700	4800 4900
Pit depth: PD (mm) *3	~750kg	1500	1800	2100	2110	2400
	~1000kg ~1350kg				2140 2190	
Minimum machine room height (mm)		2200	2200	2200	2500	2500
Maximum number of stops		24	32	32	32	32
Maximum travel (m)	~700kg	60	80	80	-	-
	750kg		100	100	120	120
	~1350kg		105	105	-	-
Minimum floor height (mm)		2500 *6				

Note:

\*1: CO: 2 panel center opening doors.

\*2: Rated capacity is calculated at 65kg per person, as required by the JAPAN code.

\*3: Minimum hoistway dimensions and machine room dimensions (AH, BH, AM, BM, PD and OH) shown in the table are applied to standard specifications only.

\*4: Minimum hoistway dimensions (AH & BH) shown in the table are after waterproofing of pit and do not include plumb tolerance.

\*5: The NexWay-S (Series-AW) complies with the JAPAN code. It can also comply with other national regulations, so please consult us.

\*6: Some specifications require more than 2,500mm as a minimum floor height. Please consult us if the floor height is less than "Entrance height HH+700mm".

## Operation System

1-car selective collective (1C-2BC)	Standard
2 to 4-car group control ΣAI-22 system	Optional
3 to 8-car group control ΣAI-2200 system	Optional

## Legal Compliance

The NexWay-S (Series-AW) complies with the Japan code. It can also comply with other national regulations, so please consult us.

## Work Not Included in Elevator Contract

The following items are excluded from Mitsubishi's elevator installation work, and are 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 completion of the installation.
- Construction of an illuminated, ventilated, and waterproofed elevator hoistway.
- A ladder to the elevator pit.
- Provision for cutting of 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 emergency bell, interphone 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 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.

\* Work responsibilities in installation and construction shall be determined according to the local laws. Consult our 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.
  - a. The relative humidity shall be below 90% on a monthly average and below 95% on a daily average.
  - b. 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.



# Deluxe Car Design (optional)

## N91

<b>Lighting</b>	- Indirect full lighting
<b>Ceiling</b>	- Acrylic blocks and milky white resin board
<b>Ceiling trim</b>	- Black alumite
<b>Walls</b>	- Pattern-printed steel sheet (CP31)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP31)
<b>Doors</b>	- Pattern-printed steel sheet (CP31)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR62)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)



## N41

<b>Lighting</b>	- Half mirror and downlights
<b>Ceiling (both sides)</b>	- Painted steel sheet (Y055)
<b>Ceiling trim</b>	- Black alumite
<b>Walls</b>	- Pattern-printed steel sheet (CP53)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP53)
<b>Doors</b>	- Pattern-printed steel sheet (CP53)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR86)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)

# Deluxe Car Design (optional)

## N111

<b>Lighting</b>	- Indirect full lighting
<b>Ceiling</b>	- Painted steel sheet (Y055)
<b>Ceiling trim</b>	- Black alumite
<b>Walls</b>	- Pattern-printed steel sheet (CP43)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP43)
<b>Doors</b>	- Pattern-printed steel sheet (CP43)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR18)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)



## N101

<b>Lighting</b>	- Indirect full lighting
<b>Ceiling</b>	- Arched milky white resin board
<b>Ceiling trim</b>	- Black alumite
<b>Walls</b>	- Pattern-printed steel sheet (CP23)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP23)
<b>Doors</b>	- Pattern-printed steel sheet (CP23)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR18)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)

## N31

<b>Lighting</b>	- Indirect full lighting
<b>Ceiling</b>	- Arched milky white resin board
<b>Ceiling trim</b>	- Black alumite
<b>Walls</b>	- Pattern-printed steel sheet (CP33)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP33)
<b>Doors</b>	- Pattern-printed steel sheet (CP33)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR62)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)



## N21

<b>Lighting</b>	- Central indirect downlights
<b>Ceiling</b>	- Painted steel sheet (Y033)
<b>Walls</b>	- Pattern-printed steel sheet (CP63)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP63)
<b>Doors</b>	- Pattern-printed steel sheet (CP63)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR45)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)

## N11

<b>Lighting</b>	- Downlights
<b>Ceiling</b>	- Painted steel sheet (Y055)
<b>Walls</b>	- Pattern-printed steel sheet (CP43)
<b>Transom panel</b>	- Pattern-printed steel sheet (CP43)
<b>Doors</b>	- Pattern-printed steel sheet (CP43)
<b>Front return panels</b>	- Stainless steel hairline
<b>Kickplate</b>	- Painted steel sheet (Y055)
<b>Flooring</b>	- Durable vinyl tiles (PR18)
<b>Car operating panel</b>	- CBE-N210 / Stainless steel hairline (optional)



## Car Finishes and Designs

Walls, transom panel and doors	Std.	Painted steel sheet
	Opt.	Pattern-printed steel sheet
		Stainless steel hairline*6
		Stainless steel etching*6
		Stainless steel etching with color paint*6
		Stainless steel mirror
		Stainless steel non-directional hairline
		Decorative laminated plastic*1/*4
		Decorative wooden panel*1/*2
		MEL ART-II painting*5
		Stainless steel hairline door trims
		Incorporating glass windows*3
Front return panel	Std.	Painted steel sheet
	Opt.	Stainless steel hairline

Entrance columns	Std.	Integrated with front return panel
Kickplate	Std.	Painted steel sheet
	Opt.	Stainless steel hairline
Flooring	Std.	Durable vinyl tiles (2mm thick)
	Opt.	Durable rubber tiles (3mm or 6mm thick)
		Carpet*1 Marble/granite*1
Sill	Std.	Extruded hard aluminum
	Opt.	Stainless steel

### Notes

- \*1: Supplied by customer.  
\*2: Applicable only to car walls.  
\*3: Applicable only to car doors  
\*4: Car transom panel must be made of stainless steel in hairline finish.  
\*5: Not applicable to car transom panels.  
\*6: Kickplate must be made of stainless steel in hairline finish.
- Please consult us if other finishes are required.

# Deluxe Hall Design (optional)

## E-302 Splayed Jamb

## E-202 Square Jamb



E-302

**Jamb** - Painted steel sheet (Y054)  
**Doors** - Painted steel sheet (Y054)  
**Hall position indicator and call button** - PIE-C210  
 / Stainless steel hairline

## E-312 Splayed Jamb with Transom Panel

## E-212 Square Jamb with Transom Panel



E-312

**Jamb** - Stainless steel hairline  
**Transom panel** - Stainless steel hairline  
**Doors** - Stainless steel hairline  
**Hall position indicator** - PID-D330  
**Hall button** - HBE-C210  
 / Stainless steel hairline

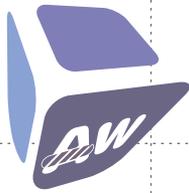
## Entrance Designs

Jamb	Std.	Painted steel sheet
	Opt.	Stainless steel hairline
Doors	Std.	Painted steel sheet
	Opt.	Stainless steel hairline
		Stainless steel etching
		Stainless steel etching with color paint
		Stainless steel mirror
		MEL ART-II painting
Incorporating glass windows		

Transom panel	Opt.	Painted steel sheet
		Stainless steel hairline
		Stainless steel etching
Sill	Std.	Extruded hard aluminum
	Opt.	Stainless steel

# Color Samples

NexWay-S



## Painted Finish (for Car Walls and Doors, Entrance Jambes and Doors: Standard)



## Painted Finish (for Car Ceiling)



## Vinyl Tile (for Car Flooring)



## Pattern-Printed Steel Sheet (for Car Walls and Doors: Optional)

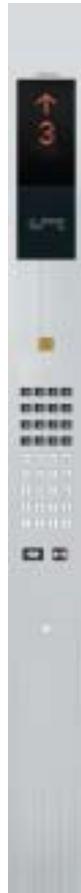


Note: Please refer to the Mitsubishi elevator color sample book S9 for actual colors.

# Deluxe Car Design (optional)

## Car Operating Panels

<Front Return Panel only>



**CBE-C240\*1**  
(standard for 2 to 30 stops)

**CBH-C310**  
(standard for 31 to 32 stops)

**CBE-C210**

**CBV-C210**

**CBJ-C210**



Micro stroke click button

Small-type  
micro stroke button

Micro stroke click button

Vandal-resistant type  
micro stroke click button

Round-type  
micro stroke click button

Faceplate	Stainless steel hairline
Display panel	Smoky gray plastic, matt surface
Direction and position indicator	Digital LED dot display, orange when illuminated
Floor button	Micro stroke click and tactile button in gray plastic (CBE-C240/CBE-C210/CBE-N210)*2
	Small-type micro stroke button in white or gray plastic (CBH-N310/CBH-C310)*3
	Vandal-resistant type micro stroke click and tactile button in stainless steel matt (CBV-N210/CBV-C210)
	Round-type micro stroke click button in gray plastic (CBJ-C210)*3

Response light	LED lamp, yellow orange when illuminated
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Note:

\*1: CBE-C240 is a faceplate type car operating panel. The others are a full-height car operating panel.

\*2: Flat button is also available (CBF-C240/CBF-C210/CBF-N210).

\*3: Please note that Flat-type (non-tactile) call buttons can not be used in countries where regulations, such as EN 81-70, mandate specific measures for physically disabled passengers.

<Side Wall only>



**CBE-N210**



Micro stroke click button



**CBH-N310**



Small-type  
micro stroke button



**CBV-N210**



Vandal-resistant type  
micro stroke click button

# Deluxe Hall Design (optional)

## Hall Position Indicators and Call Buttons



**PIE-A210**  
Micro stroke  
click button  
(standard)



**PIE-A220**  
Micro stroke  
click button  
(standard)



**PIE-C210**  
Micro stroke  
click button



**PIE-C220**  
Micro stroke  
click button



**PIV-C210**  
Vandal-resistant type  
micro stroke  
click button



**PIV-C220**  
Vandal-resistant type  
micro stroke  
click button



**PIJ-C210**  
Round-type  
micro stroke  
click button



**PIJ-C220**  
Round-type  
micro stroke  
click button

Faceplate	Stainless steel hairline with dark gray plastic case (PIE-A210/PIE-A220)
	Stainless steel hairline (others)
Display panel	Smoky gray plastic, matt surface
Direction and position indicator	Digital LED dot display, orange when illuminated
Call button	Micro stroke click and tactile button in gray plastic (PIE-A210/PIE-A220/PIE-C210/PIE-C220)
	Vandal-resistant type micro stroke click and tactile button in stainless steel matt (PIV-C210/PIV-C220)
	Round-type micro stroke click button in gray plastic (PIJ-C210/PIJ-C220)*
Response light	LED lamp, yellow orange when illuminated

Note: \*Please note that Flat-type (non-tactile) call buttons can not be used in countries where regulations, such as EN 81-70, mandate specific measures for physically disabled passengers.

## Hall Lanterns



**HLH-A10**



**HLV-A10**

Faceplate	Stainless steel hairline
Indication block	Clear acrylic
Lighting	Incandescent lamp, yellow orange when illuminated

## Hall Position Indicators



**PIH-D330**



**PID-D330**

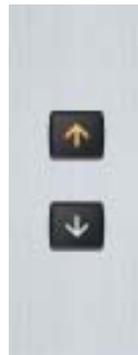
(assembled into transom panel)

Faceplate	Stainless steel hairline (PIH-D330)
Display panel	Smoky gray plastic, matt surface
Direction and position indicator	Digital LED dot display, orange when illuminated, flashing direction light on car arrival

## Hall Buttons



**HBE-A210**  
Micro stroke click button



**HBE-C210**  
Micro stroke click button



**HBV-C210**  
Vandal-resistant type micro stroke click button



**HBJ-C210**  
Round-type micro stroke click button

Faceplate	Stainless steel hairline with dark gray plastic case (HBE-A210)
	Stainless steel hairline (others)

Call button	Micro stroke click and tactile button in gray plastic (HBE-A210/HBE-C210)
	Vandal-resistant type micro stroke click and tactile button in stainless steel matt (HBV-C210)
	Round-type micro stroke click button in gray plastic (HBJ-C210)*
Response light	LED lamp, yellow orange when illuminated

Note: \*Please note that Flat-type (non-tactile) call buttons can not be used in countries where regulations, such as EN 81-70, mandate specific measures for physically disabled passengers.

# Table of Features (optional)

Feature	Description	2BC	ΣAI-22	ΣAI-2200
<b>■ OPERATIONAL AND SERVICE FEATURES</b>				
Car Call Erase (FCC-P)	If the wrong car button is pressed, it can be canceled by quickly pressing the same button again twice.	○	○	○
Out-of-Service-Remote (RCS)	With a key switch on the Supervisory Control 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.	○	○	○
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 control panel. This function is automatically deactivated during Emergency Operations.	○	○	○
Non-Service to Specific Floors — Car Button Type (NS-CB)	Service to specific floors can be suspended by locking floor buttons on the car operating panel. (During an emergency, service floor selection is halted.)	○	○	○
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.	○	○	○
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.	○	○	○
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.	○	○	○
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.	○	○	○
<b>■ GROUP CONTROL FEATURES</b>				
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.)	—	—	○#2
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.	—	—	○
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.	—	○	○
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.	—	○	○
Forced Floor Stop (FFS)	All cars in a bank automatically make a stop at a pre-determined floor on every trip without being called.	○	○	○
Main Floor Parking (MFP)	An available car always parks on the main floor with the doors open to reduce passenger waiting time.	○	○	○
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.)	—	○#1	○
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.)	—	○#1	○
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.	—	○	○
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.	—	○	○
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.	○	○	○

Notes: #1 = Please consult us for the production term, etc. #2 = When DOAS is applied, AIL and SR (or Multi-Beam Door Sensor) are to be applied as a standard.

Feature	Description	2BC	ΣAI-22	ΣAI-2200
<b>■ DOOR OPERATION FEATURES</b>				
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 beep, as well as voice guidance, sounds and the doors slowly close when they have remained open for longer than the preset period.	○	○	○
Safety Door Edge (SDE)	One Side	○	○	○
	Both Sides (CO Doors Only)			
Ultrasonic Door Sensor (USDS)	Sound waves are used to scan a 3D area near the open doors to detect passengers or objects.	○	○	○
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 the full height of the doors as they close to detect passengers or objects. (Cannot be combined with SR feature.)	○	○	○#2
3D Multi-Beam Door Sensor	Multiple infrared-light beams cover the full 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.)	○	○	○
<b>■ SIGNAL AND DISPLAY FEATURES</b>				
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.	○#1	○#1	○#1
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.	—	○#1	○#2
Second Car Prediction (TCP)	When a hall is crowded to the extent that one car can not accommodate all waiting passengers, the hall lantern will light up to indicate the next car to serve the hall.	—	—	○
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 information display mounted inside a car on the Car Operating Panel (CBE-C220 or CBE-N220) that indicates the date and time, current car position and traveling direction.	○#1	○#1	○#1
<b>■ EMERGENCY OPERATIONS AND FEATURES</b>				
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. (Max. 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) to 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.	○	○	○
Fireman's Emergency Operation (FE)	During a fire, when the fireman'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.	○	○	○
Mitsubishi Elevator Monitoring and Control System (MeEye)	Each elevator's status and operations can be monitored and controlled using an advanced Web-based technology which provides an interface with the building management 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: #1 = Please consult us for the production term, etc. #2 = When DOAS is applied, AIL and SR (or Multi-Beam Door Sensor) are to be applied as a standard.