MITSUBISHI ELECTRIC
Changes for the Better

Quality in Motion™

PASSENGER ELEVATORS
(HIGH-SPEED STANDARD-TYPE)



NexWay-S

Package R

NexWay-S

Package R

At higher speed

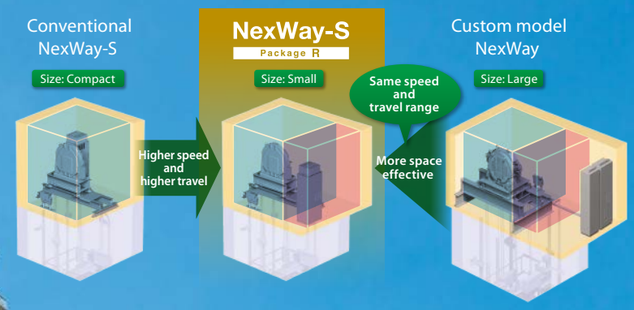
For higher buildings

With ideal space design

High-rise residential buildings are increasing rapidly in emerging nations where high speed elevators are expected. Swiftly responding to the trend of the times, we have concentrated its technologies to develop a new elevator using the most compact devices possible while drawing on the capabilities of the conventional NexWay-S! This includes keeping the footprint of the machine room housing these devices to a bare minimum!

Smaller machine room

Minimizing increase in machine room size from the conventional NexWay-S -Requiring less machine room space than the custom-type high-speed elevator NexWay.



Principle

Based on our policy, "Quality in Motion", we provide elevators and escalators that will satisfy our customers with high levels of comfort, efficiency, ecology and safety.

Our elevators, escalators and building management systems are always evolving, helping achieve our goal of being the No.1 brand in quality.
In order to satisfy customers in all aspects of comfort, efficiency and safety while realizing a sustainable society, quality must be of the highest level in all products and business activities, while priority is place on consideration for the environment. As the times change, we promise to utilize the collective strengths of its advanced and environmental technologies to offer its customers safe and reliable products while contributing to society.

Efficiency
Comfort
Ecology
Safety

Quality in Motion™



We strive to be green in all of our business activities.

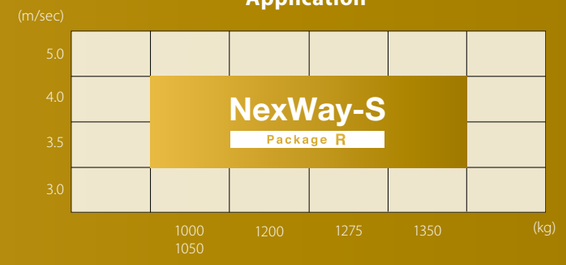
We take every action to reduce environmental burden during each process of our elevators' and escalators' lifecycle.

* Quality in Motion is a trademark of Mitsubishi Electric Corporation.

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Application



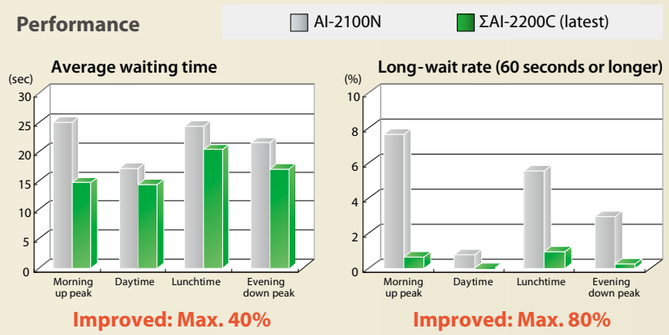
Efficiency

Group Control Systems: ΣAI-22 and ΣAI-2200C

ΣAI-22 and ΣAI-2200C control multiple elevators optimally according to the building size.

Group control systems	Suitable building size	Number of cars in a group
ΣAI-22 system	Small to medium	3 to 4
ΣAI-2200C system	Large (especially buildings with dynamic traffic conditions)	3 to 8

Performance

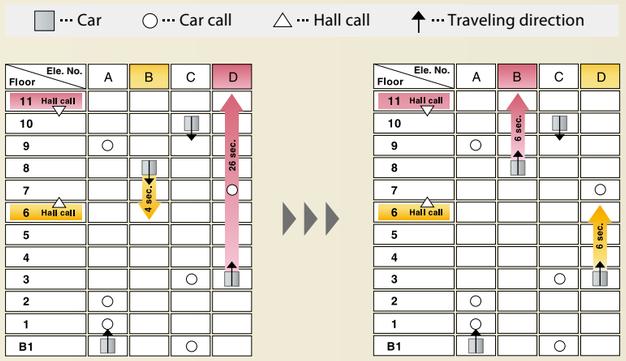


Improved: Max. 40% **Improved: Max. 80%**

Cooperative Optimization Assignment (ΣAI-2200C)

Forecasts a near-future hall call to reduce long waits

When a hall call is registered, the algorithm predicts near-future calls 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.



AI-2100N
[A hall call is registered at 6th Fl.]
Allocates the closest car B.
[Another hall call is soon registered at 11th Fl.]
Allocates D, resulting in long wait of 26 sec.

ΣAI-2200C (latest)
[A hall call is registered at 6th Fl.]
Allocates D, which is moving upward.
[Another hall call is soon registered at 11th Fl.]
Allocates B, which immediately arrives at the floor.

Destination Oriented Allocation System: DOAS (Optional for ΣAI-2200C)

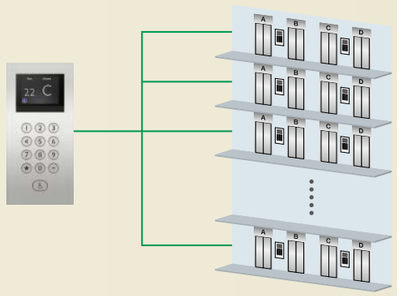
Allocates passengers to cars depending on destination floors

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.

Standard arrangement of hall fixtures (No hall lantern* is provided.)
Cars receive destination information from all floors to provide the best service for more complex traffic conditions throughout the day.

Note:
* Hall lanterns are available as optional.

Example of hall arrangement

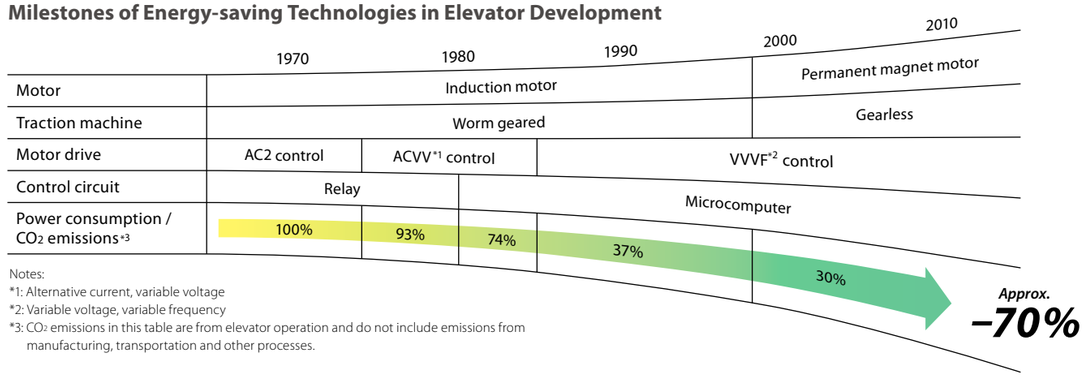


Ecology

Using Energy Wisely

Our long-term commitment to developing energy-efficient elevators has created systems and functions that make intelligent use of power.

Milestones of Energy-saving Technologies in Elevator Development



Notes:
*1: Alternative current, variable voltage
*2: Variable voltage, variable frequency
*3: CO_2 emissions in this table are from elevator operation and do not include emissions from manufacturing, transportation and other processes.

Devices that Use Less Energy

LED Lighting (Optional)

Used for ceiling lights and hall lanterns, LEDs boost the overall energy performance of the building. Furthermore, a long service life eliminates the need for frequent lamp replacement.



Ceiling: L210S LED downlights (yellow-orange)

Advantages of LEDs

Ceiling: L210S



Approximately 12.5 times longer **Approximately 75% reduction**

Safety

Emergency Situations

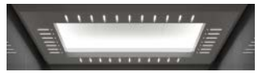
Emergency Operations

Enhance safety by adding emergency operation features which quickly respond to a power failure, fire or earthquake. (Please refer to page 15 for details.)

Power failure	**Mitsubishi Emergency Landing Device: MELD (Optional)** Upon power failure, the car automatically moves to the nearest floor using a rechargeable battery to facilitate the safe evacuation of passengers.
	Operation by Emergency Power Source — Automatic/Manual: OEPS (Optional) Upon power failure, predetermined cars use the building's emergency power supply to move to a specified floor and open the doors for passengers to evacuate. After all cars have arrived, the predetermined cars will resume normal operation.
Fire	**Fire Emergency Return: FER (Optional)** When a key switch or the building's fire sensor is activated, all cars immediately return to a specified floor and open the doors to facilitate the safe evacuation of passengers.
	Firefighters' Emergency Operation: FE (Optional) When the fire operation switch is activated, the car immediately returns to a predetermined floor. The car then responds only to car calls, which facilitates firefighting and rescue operations.
Earthquake	**Earthquake Emergency Return: EER-P/EER-S (Optional)** When a primary and/or secondary wave seismic sensor is activated, all cars stop at the nearest floor and park there with the doors open to facilitate the safe evacuation of passengers.

Car Design

Ceiling

S00 Series	L210 Series LED	L400 Series LED	N300 Series
S00: Painted steel sheet (Color: Y033 only) 	L210: Painted steel sheet  L210S: Hairline stainless-steel 	L400: Painted steel sheet 	N300: Painted steel sheet  N300S: Hairline stainless-steel 

Materials and finishes

Painted steel sheet

Y033 White


Y073 Light beige


Y055 Dark gray

Stainless-steel

Hairline



Flooring

Materials and finishes

Durable vinyl tiles


PR803 Gray


PR812 Dim-gray

PR801 Cream beige

PR810 Ocher

Walls, transom panel and doors

Materials	Finishes and colors
Stainless-steel  (Hairline)  (Mirror)	Hairline  Mirror  Shiny vibration
Colored and/or etched hairline stainless-steel  (Colored and etched)  (Etched)	Colored hairline  Gold  Bronze Colored hairline with etched pattern  EPA-1 (Gold)  EPA-2 (Bronze)  EPA-3 (Gold) Hairline with etched pattern  EPA-1  EPA-2  EPA-3  EPA-4  EPA-5  EPA-6 * Please refer to the etching finish pattern book, EFA1, for details. Non-etched surface Etched surface
Painted steel sheet 	Neutral Colors Y033 White  Y004 Beige  Y071 Neutral beige  Y002 Dark brown  Y055 Dark gray Cool Colors Y117 Lime green Y118 Light grayish blue Y116 Blue Warm Colors Y016 Light brown Y119 Carrot orange Y014 Red-violet

Application

Materials and finishes	Walls	Transom panel	Doors	Front return panels	Kickplate	Flooring	Sill
Hairline stainless-steel	Standard	Standard	Standard	Standard	Optional		
Painted steel sheet	Optional	Optional	Optional	Optional	Optional*4		
Mirror stainless-steel	Optional	Optional	Optional	Optional			
Shiny vibration stainless-steel	Optional	Optional	Optional	Optional			
Colored hairline stainless-steel	Optional	Optional			Optional		
Hairline etched stainless-steel *1	Optional	Optional	Optional				
Colored hairline etched stainless-steel *2	Optional	Optional					
Glass windows [1300(H) × 200(W) / 1300(H) × 300(W)] *3			Optional				
See-through doors *3			Optional				
Aluminum					Standard		
Durable vinyl tiles (2mm thick)						Standard	
Aluminum checkered plate (3mm thick)						Optional	
Rubber tile/carpet/marble/granite (supplied by customer)						Optional	
Extruded hard aluminum							Standard
Stainless-steel							Optional

Notes:
*1: Etching pattern EPA-1~6 only.
*2: Etching pattern EPA-1~3 only.
*3: Please consult our local agents for the production terms, etc.
*4: Only available in dark gray.

Please refer to the Design Guide for details.
Actual colors may differ slightly from those shown.

Car Operating Panels

For front return panel

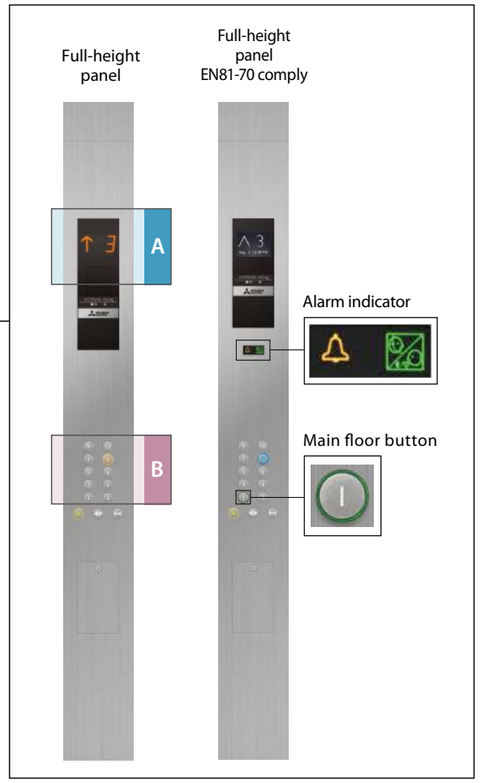




B \ A		Indicator			
		Segment LED *1	Dot Matrix LED	LCD 5.7-inch	LCD 10.4- or 15-inch
CBV■ *2, 3 Round button (General) Dia. 33mm	**Short panel (without service cabinet)**	CBV■-C760 (Main panel) CBV■-C766 (Auxiliary panel)	CBV■-C770 (Main panel) CBV■-C776 (Auxiliary panel)	CBV■-C780 (Main panel) CBV■-C786 (Auxiliary panel)	N/A
	Long panel (with service cabinet)	CBV■-C710 (Main panel) CBV■-C716 (Auxiliary panel)	CBV■-C720 (Main panel) CBV■-C726 (Auxiliary panel)	CBV■-C730 (Main panel) CBV■-C736 (Auxiliary panel)	N/A
	Swing panel	CBV■-D710 (Main panel) CBV■-D716 (Auxiliary panel)	CBV■-D720 (Main panel) CBV■-D726 (Auxiliary panel)	CBV■-D730 (Main panel) CBV■-D736 (Auxiliary panel)	**10.4-inch** CBV■-D740 (Main panel) CBV■-D746 (Auxiliary panel) **15-inch** CBV■-D750 (Main panel) CBV■-D756 (Auxiliary panel)
CBU■ *2, 3 Small square button		CBU■-C710 (Main panel) CBU■-C716 (Auxiliary panel)	CBU■-C720 (Main panel) CBU■-C726 (Auxiliary panel)	CBU■-C730 (Main panel) CBU■-C736 (Auxiliary panel)	N/A
CBVF Keypad button Dia. 30mm		N/A	N/A	CBVF-C258	N/A

For side wall





B \ A		Indicator			
		Segment LED *1	Dot Matrix LED	LCD 5.7-inch	
CBV■ *2, 3 Round button (General) Dia. 33mm	**Full-height panel**	CBV■-N710 (Main panel) CBV■-N716 (Auxiliary panel)	CBV■-N720 (Main panel) CBV■-N726 (Auxiliary panel)	CBV■-N730 (Main panel) CBV■-N736 (Auxiliary panel)	
	Full-height panel EN81-70 comply	CBV■-N712 (Main panel) CBV■-N717 (Auxiliary panel)	CBV■-N722 (Main panel) CBV■-N727 (Auxiliary panel)	CBV■-N732 (Main panel) CBV■-N737 (Auxiliary panel)	
CBU■ *2, 3 Small square button		CBU■-N710	CBU■-N720	CBU■-N730	
CBVF Keypad button Dia. 30mm		N/A	N/A	CBVF-N228 CBVF-N229S (EN81-70)	

Notes:
*1: Some letters of the alphabet are not available. Please consult our local agents for details.
*2: The symbol ■ is replaced with a number representing the button type and illumination color. (e.g. CBV1, CBV2, CBV3)
Please refer to Button line-up on this page.
*3: Mirror stainless-steel faceplates are also available (optional).

Please refer to the Design Guide for details.

Button line-up

CBV■

Illumination colors: Yellow orange | White | Blue

Tactile: CBV1 (Standard), CBV3, CBV5

Flat: CBV2, CBV4, CBV6

CBU■

Flat: CBU2, CBU4, CBU6

Button arrangement

CBV■*2 | CBU■*2 | CBVF



Interior

Mirrors



YZ-52A
Half-size



YZ-53A
2-mirror set



YZ-55SN
Full height

Handrails



YH-59S
(Hairline stainless-steel)



YH-59M
(Mirror stainless-steel)



YH-59G
(Mirror stainless-steel)



YH-57S
(Hairline stainless-steel)

Entrance Design

Doors, transom panel and jamb



Jamb types	
E-102 Narrow jamb	
E-202 Square jamb **E-302** Splayed jamb	
E-212 Square jamb with transom panel **E-312** Splayed jamb with transom panel	

Materials and finishes

Stainless-steel

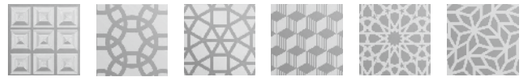


Hairline | Mirror | Shiny vibration

Hairline with etched pattern

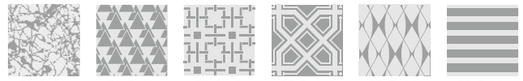
These etching patterns are not applicable to the jamb.

Non-etched surface
Etched surface



EPA-1 | EPA-2 | EPA-3 | EPA-4 | EPA-5 | EPA-6

Please refer to the etching finish pattern book, EFA1, for details.



EP-A-004 | EP-A-011 | EP-A-021 | EP-B-009 | EP-D-006 | EP-F-004

Please refer to the etching finish pattern book, EF4, for details.

Painted steel sheet

Neutral Colors



Y033 White | Y004 Beige | Y071 Neutral beige | Y002 Dark brown | Y055 Dark gray

Cool Colors



Y117 Lime green | Y118 Light grayish blue | Y116 Blue

Warm Colors



Y016 Light brown | Y119 Carrot orange | Y014 Red-violet

Application

Materials and finishes	Jamb	Transom panel	Doors	Sill
Hairline stainless steel	Standard	Optional	Standard	
Painted steel sheet	Optional	Optional	Optional	
Mirror stainless-steel			Optional	
Shiny vibration stainless-steel	Optional		Optional	
Hairline etched stainless-steel		Optional	Optional	
Glass windows [1300(H) × 200(W) / 1300(H) × 300(W)]*			Optional	
See-through doors*			Optional	
Extruded hard aluminum				Standard
Stainless-steel				Optional

Note:
*Please consult our local agents for the production terms, etc.

Please refer to the Design Guide for details.
Actual colors may differ slightly from those shown.

Hall Fixtures

Hall position indicators and buttons



Segment LED indicators *1, 2, 6 with plastic case



Standard

PIV■-A1010N *3 Boxless
PIV■-A1010B *3

Standard

PIV■-A1020N *3 Boxless
PIV■-A1020B *3

Segment LED indicators *1



PIV■-C710N *3, 4, 5



PIV■-C720N *3, 4, 6

LCD indicators



PIV■-C766N *3, 4, 5



PIV■-C776N *3, 4, 6

Dot LED indicators



PIV■-C730N *3, 4, 5



PIV■-C740N *3, 4, 6

Hall buttons



With plastic case



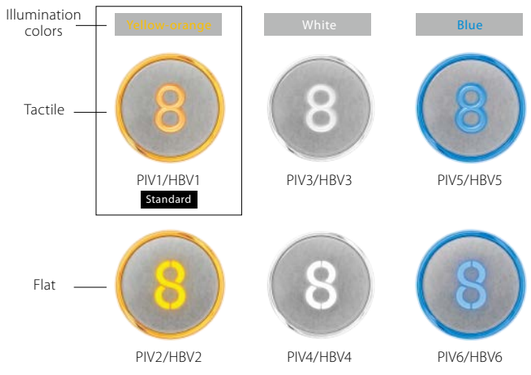
HBV■-A1010N *3, 6 Boxless
HBV■-A1010B *3, 6



HBV■-C710N *3, 4

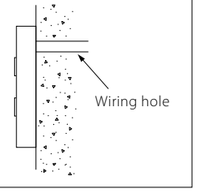
Button line-up

PIV■ and HBV■ *3



Cross-section of boxless fixtures Boxless

These hall signal fixtures can be easily mounted on the wall surface without having to cut into the wall to embed the back box.



Hall lanterns



HLV-A21S



HLV-A31S



HLV-E65



HLV-E66



HLV-A16S



HLH-A16S



HLV-E71



HLH-A31S

Hall position indicator with lantern



PIE-B47*2

LCD hall position indicator



PIH-C117
(5.7-inch)

LCD information displays at hall



PIH-C216
(10.4-inch) *7

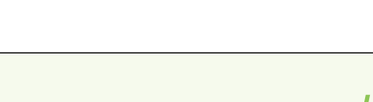


PIH-C226
(15-inch) *7

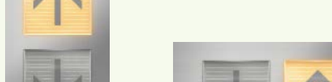
LED hall position indicators



PIH-D415
(Dot LED indicator)



PIH-D417
(Segment LED indicator)



PID-D417*2
(Built into transom panel)

Notes:
*1: Some letters of the alphabet are not available. Please consult our local agents for details.
*2: Dot LED indicators are available (optional). Please consult our local agents for details.
*3: The symbol ■ is replaced with a number representing illumination color (e.g. , PIV1, PIV3, etc.). Please refer to Button line-up on this page for illumination colors.
*4: Mirror stainless-steel faceplates are also available (optional). Please consult our local agents for details.
*5: These types are applicable to EN81-70 compliant elevators only in 1C-2BC where one car is controlled independently.
*6: These types are not applicable to elevators complying with EN81-70.
*7: Only elevators status messages are available.

Basic Specifications

Horizontal Dimensions

1-Door 1-Gate

Code number	Number of persons	Rated capacity (kg)	Door type	Counter-weight position	Car internal dimensions (mm) AAxBB	Entrance width (mm) JJ	Minimum hoistway dimensions (mm) AHxBH *1	Minimum Machine room dimensions (mm) AMxBM *2
P13	13	1000	CO	Rear	1600x1400	900	2100x2160	2130x3390
P14	14	1050	CO	Rear	1800x1350	1000	2300x2110	2330x3340
					1600x1500	900	2100x2260	2130x3490
			2S	Side	1100x2100		1960x2510	2010x2740
P16	16	1200	CO	Rear	1800x1500	1000	2300x2260	2330x3490
					2000x1350	1100	2500x2110	2530x3340
P17	17	1275	CO		2000x1400		2500x2160	2530x3390
			2S	Side	1200x2300		2060x2710	2070x2820
P18	18	1350	CO	Rear	2000x1500		2500x2260	2530x3490

1-Door 2-Gate

Code number	Number of persons	Rated capacity (kg)	Door type	Counter-weight position	Car internal dimensions (mm) AAxBB	Entrance width (mm) JJ	Minimum hoistway dimensions (mm) AHxBH *1	Minimum Machine room dimensions (mm) AMxBM *2
P14	14	1050	2S	Side	1100x2100	900	1960x2754	2010x2910
P17	17	1275			1200x2250	1100	2060x2904	2070x2970

[Terms of the tables]
- These tables show standard specifications without the fireproof landing door and counterweight safety. Please consult our local agents for other specifications.
- CO: 2-panel center opening doors, 2S: 2-panel side sliding doors.
- Minimum hoistway dimensions (AH and BH) shown in the table are after waterproofing of the pit and do not include plumb tolerance.

Note:
*1: The minimum hoistway dimensions (AH and BH) shown in the table above is a space for a car when two or more cars are located in the same hoistway. If only one car is located in the hoistway, the hoistway dimensions are different from those shown. Please consult our local agents for details.
*2: The space in the machine room may need to be increased depending on the layout of the equipment.

Vertical Dimensions

1-Door 1-Gate & 1-Door 2-Gate

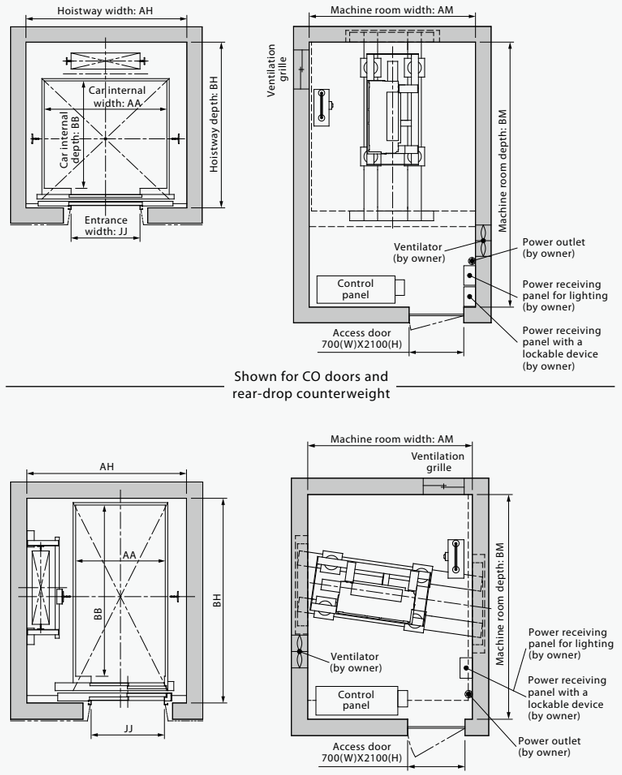
Code number	Maximum travel (m) TR	Maximum number of stops	Rated speed (m/sec)	Minimum overhead (mm) OH	Minimum pit depth (mm) PD	Minimum machine room clear height (mm) HM	Minimum floor to floor height (mm)
P13 P14 P16	180	64	3.5	5630	3270	2500*1	2600*2
			4.0	6020	3540		
P17 P18	150		3.5	5630	3270		
			4.0	6020	3540		

[Terms of the table]
- This table shows standard specifications without counterweight safety. Please consult our local agents for other specifications.

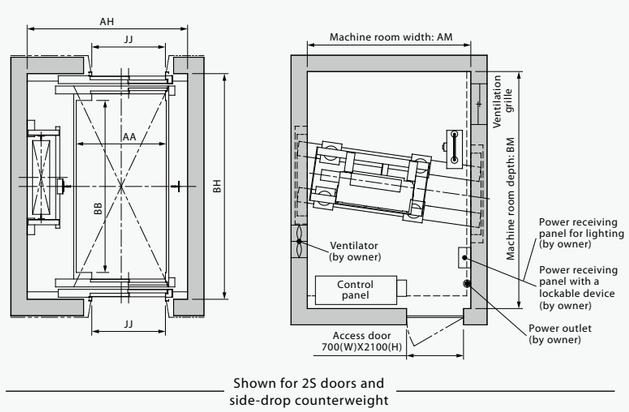
Notes:
*1: Some specifications require more than 2500mm (2700mm for P14 with car internal dimensions of 1600x1500 and P13) as a minimum machine room height. Please consult our local agents for the appropriate machine room height.
*2: Some specifications require more than 2600mm as a minimum floor height. Please consult our local agents if the floor height is less than entrance height HH + 700mm, and the elevator is 1-door 2-gate.

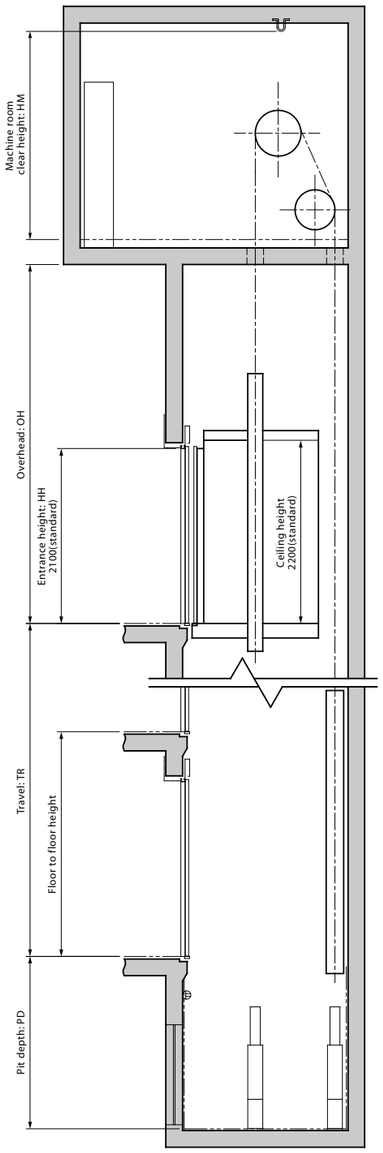
Hoistway Plan / Machine Room Plan / Hoistway Section

1-Door 1-Gate



1-Door 2-Gate





Note: Hoistway section for side-drop counterweight (1-door 1-gate & 2-gate) is slightly different from this figure.

Dimensional information shown here conforms to EN81-20/50 2014.

Features (1/2)

Feature	Abbreviation	Description	1C to 2C 2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
■ EMERGENCY OPERATIONS AND FEATURES					
Building Management System — GateWay	BMS-GW	Each elevator's status and operation can be monitored and controlled using a building management system which manages various facilities in the building via the interface for the elevator system.	ⓞ	ⓞ	ⓞ
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 the safe evacuation of passengers.	ⓞ	ⓞ	ⓞ
Emergency Car Lighting	ECL	Car lighting which turns on immediately when power fails, providing a minimum level of lighting within the car. (Choice of dry-cell battery or trickle-charge battery.)	Ⓢ	Ⓢ	Ⓢ
Fire Emergency Return	FER	Upon activation of a key switch or a building's fire alarm, all calls are canceled, all cars immediately return to a specified evacuation floor and the doors open to facilitate the safe evacuation of passengers.	ⓞ	ⓞ	ⓞ
Firefighters' Emergency Operation	FE	During a fire, when the fire operation switch is activated, the car calls of a specified car and all hall calls are canceled and the car immediately returns to a predetermined floor. The car then responds only to car calls which facilitate fire-fighting and rescue operation.	ⓞ	ⓞ	ⓞ
MelEye Mitsubishi Elevators & Escalators Monitoring and Control System	WP-W	Each elevator's status and operation 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.	ⓞ	ⓞ	ⓞ
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 facilitate the safe evacuation of passengers. (Maximum allowable floor-to-floor distance: 11meters)	ⓞ	ⓞ	ⓞ
Operation by Emergency Power Source — Automatic/Manual	OEPS	Upon power failure, predetermined car(s) uses the building's emergency power supply to move to a specified floor, where the doors then open to facilitate the safe evacuation of passengers. After all cars have arrived, the predetermined car(s) resume normal operation.	ⓞ	ⓞ	ⓞ
■ DOOR OPERATION FEATURES					
Automatic Door Speed Control	DSAC	Door load on each floor, which can depend on the type of hall doors, is monitored to adjust the door speed, thereby making the door speed consistent throughout all floors.	Ⓢ	Ⓢ	Ⓢ
Door Load Detector	DLD	When excessive door load has been detected while opening or closing, the doors immediately reverse.	Ⓢ	Ⓢ	Ⓢ
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 the AAN-B or AAN-G feature, a beep and voice guidance sound instead of the buzzer.	Ⓢ	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ	Ⓢ
Electronic Doorman	EDM	Door open time is minimized using the SR or Multi-beam Door Sensor feature that detects passengers boarding or exiting.	ⓞ	ⓞ	ⓞ
Extended Door-open Button	DKO-TB	When the button inside a car is pressed, the doors will remain open longer to allow loading and unloading of baggage, a stretcher, etc.	ⓞ	ⓞ	ⓞ
Multi-beam Door Sensor	—	Multiple infrared-light beams cover some height of the doors to detect passengers or objects as the doors close. (Cannot be combined with the SR feature.)	ⓞ#1	ⓞ#1	ⓞ#1
Quick Closing System with Sensor *	SNCD	The TOF door sensor is used to scan a 3D area near the open doors to detect passengers or objects. And when there is no passenger in the elevator hall, the elevator starts closing the doors more quickly to increase operational efficiency. * This feature is not applicable to the environment where the sensors are exposed to direct or reflected sunlight because false detection may occur.	ⓞ#4	ⓞ#4	ⓞ#4
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 cleared from the doorway.	Ⓢ	Ⓢ	Ⓢ
Safety Door Edge	SDE	The sensitive door edge detects passengers or objects during door closing.	ⓞ	ⓞ	ⓞ
Safety Ray #4	SR	1-Beam: One or two infrared-light beams cover the full width of the doors as they close to detect passengers or objects. (Cannot be combined with the Multi-beam Door Sensor or MBSS feature.)	Ⓢ#8	Ⓢ#8	Ⓢ#8
		2-Beam	ⓞ#8	ⓞ#8	ⓞ#8
■ OPERATIONAL AND SERVICE FEATURES					
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.	ⓞ	ⓞ	ⓞ
Automatic Bypass	ABP	A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency.	Ⓢ#2	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ	Ⓢ
Backup Operation for Group Control Microprocessor	GCBK	An operation by car controllers which automatically maintains elevator operation in the event that a microprocessor or transmission line in the group controller has failed.	Ⓢ†	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ	Ⓢ
Car Fan Shut Off — Automatic	CFO-A	If there are no calls for a specified period, the car ventilation fan will automatically turn off to conserve energy.	Ⓢ	Ⓢ	Ⓢ
Car Light Shut Off — Automatic	CLO-A	If there are no calls for a specified period, the car lighting will automatically turn off to conserve energy.	Ⓢ	Ⓢ	Ⓢ

Feature	Abbreviation	Description	1C to 2C 2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
■ OPERATIONAL AND SERVICE FEATURES (Continued from the previous page.)					
Continuity of Service	COS	A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.	Ⓢ†	Ⓢ	Ⓢ
Elevator and Security System Interface	EL-SCA EL-SC	Personal authentication by building's security devices can trigger predetermined elevator operation such as permission of access to private floors, automatic registration of a hall call and a destination floor, and priority service.	ⓞ	ⓞ	ⓞ
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.	ⓞ	ⓞ	Ⓢ
False Call Canceling — Car Button Type	FCC-P	If a wrong car button is pressed, it can be canceled by quickly pressing the same button again twice.	ⓞ	ⓞ	ⓞ
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.	Ⓢ	Ⓢ	Ⓢ
Next Landing	NXL	If the elevator doors do not open fully at a destination floor, the doors close, and the car automatically moves to the next or nearest floor where the doors open.	Ⓢ	Ⓢ	Ⓢ
Non-service to Specific Floors — Car Button Type	NS-CB	To enhance security, service to specific floors can be disabled using the car operating panel. This function is automatically deactivated during emergency operation.	ⓞ	ⓞ	ⓞ
Non-service to Specific Floors — Switch/Timer Type	NS NS-T	To enhance security, service to specific floors can be disabled using a manual or timer switch. This function is automatically deactivated during emergency operation.	ⓞ	ⓞ	ⓞ
Non-service Temporary Release for Car Call — Card Reader Type	NSCR-C	To enhance security, car calls for desired floors can be registered only by placing a card over a card reader. This function is automatically deactivated during emergency operation.	ⓞ	ⓞ	ⓞ
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.	ⓞ	ⓞ	ⓞ
Out-of-service — Remote	RCS	With a key switch on the MelEye, etc., a car can be called to a specified floor after responding to all car calls, and then automatically be taken out of service.	ⓞ	ⓞ	ⓞ
Overload Holding Stop	OLH	A buzzer sounds to alert the passengers that the car is overloaded. The doors remain open and the car will not leave that floor until enough passengers exit the car.	Ⓢ	Ⓢ	Ⓢ
Regenerative Converter	PCNV	For energy conservation, power regenerated by a traction machine can be used by other electrical systems in the building.	Ⓢ	Ⓢ	Ⓢ
Return Operation	RET	Using a key switch, 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.	ⓞ	ⓞ	ⓞ
Rope Replacement Alarm	RRA	This self-diagnosis function gives an alert when rope replacement timing has approached.	Ⓢ	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ	Ⓢ
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 operation.	ⓞ	ⓞ	ⓞ
■ GROUP CONTROL FEATURES					
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.	ⓞ†,#4	ⓞ	ⓞ
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.)	—	ⓞ#4	ⓞ
Congested-floor Service	CFS	The timing of car allocation and the number of cars to be allocated to floors where meeting rooms or ballrooms exist and the traffic intensifies for short periods of time are controlled according to the detected traffic density data for those floors.	—	ⓞ	ⓞ
Destination Oriented Allocation System	DOAS	When a passenger enters a destination floor at a hall, the hall operating panel indicates which car will serve the floor. The passenger does not need to press a button in the car. Dispersing passengers by destination prevents congestion in the cars and minimizes waiting and traveling time.	—	—	ⓞ#5
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 check-out time, etc. to minimize passenger waiting time.	—	ⓞ	ⓞ
Elevator Call System with Robot	ELCS-RB	Linking a robot to the sophisticated elevator system allows the robot to call, enter and exit an elevator so as to move freely between floors. (A robot needs to be prepared by customer.)	ⓞ#4	ⓞ#4	ⓞ#4
Elevator Call System with Smartphone	ELCS-SP	Users can call an elevator remotely by accessing a dedicated website with a smartphone. By eliminating the need to touch a call button in the elevator lobby or car, the system provides increased convenience and comfort to users.	ⓞ#4	ⓞ#4	ⓞ#4
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.	ⓞ†,#4	ⓞ	Ⓢ
Forced Floor Stop	FFS	All cars in a bank automatically make a stop at a predetermined floor on every trip without being called.	ⓞ	ⓞ	ⓞ
Intense Up Peak	IUP	To maximize transport efficiency, an elevator bank is 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 lobby floor, the timing of door closing, etc. are controlled based on predicted traffic data.	—	—	ⓞ

Feature	Abbreviation	Description	1C to 2C 2BC	3C to 4C ΣAI-22	3C to 8C ΣAI-2200C
■ GROUP CONTROL FEATURES (Continued from the previous page.)					
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.)	—	ⓞ#4	ⓞ
Lunchtime Service	LTS	During the first half of lunchtime, calls for a restaurant floor are 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 (lobby) floors. The floor designated as the "main floor" in a group control operation can be changed as necessary using a manual switch.	ⓞ	ⓞ	ⓞ
Main Floor Parking	MFP	An available car always parks on the main (lobby) floor with the doors open.	ⓞ	ⓞ	ⓞ
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.)	—	ⓞ#4	ⓞ
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.)	—	ⓞ#4	ⓞ
Up Peak Service	UPS	Controls the number of cars to be allocated to the lobby floor, as well as the car allocation timing, in order to meet increased demands for upward travel from the lobby floor during office starting time, hotel check-in time, etc., and minimize passenger waiting time.	—	ⓞ	ⓞ
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 then responds only to car calls.	ⓞ†,#4	ⓞ	ⓞ
■ SIGNAL AND DISPLAY FEATURES					
Auxiliary Car Operating Panel	ACS	An additional car control panel which can be installed for large-capacity elevators, heavy-traffic elevators, etc.	ⓞ	ⓞ	ⓞ
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. (Available in limited languages.)	Ⓢ	Ⓢ	Ⓢ
Car Arrival Chime	AECC (car)	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.)	ⓞ	ⓞ	—#6
	AECH (hall)		ⓞ	ⓞ	Ⓢ
Car Information Display	CID	This 10.4- or 15-inch LCD for car front return panels shows the date and time, car position, travel direction and elevator status messages. * Please consult our local agents if you would like to display a video or a slideshow of still images on the screen.	ⓞ	ⓞ	ⓞ
Car LCD Position Indicator	CID-S	This 5.7-inch LCD for car operating panels shows the date and time, car position, travel direction and elevator status messages.	ⓞ	ⓞ	ⓞ
Flashing Hall Lantern	FHL	A hall lantern, which corresponds to a car's service direction, flashes to indicate that the car will soon arrive.	ⓞ	ⓞ	Ⓢ
Hall Information Display	HID	This 10.4- or 15-inch LCD for elevator halls shows the date and time, car position, travel direction and elevator status messages. * Please consult our local agents if you would like to display a video or a slideshow of still images on the screen.	ⓞ	ⓞ	—
Hall LCD Position Indicator	HID-S	This 5.7-inch LCD for elevator halls shows the date and time, car position, travel direction and elevator status messages.	ⓞ	ⓞ	—
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.	—	—	ⓞ
Intercommunication System	ITP	A system which allows communication between passengers inside a car and the building personnel.	ⓞ#1	ⓞ#1	ⓞ#1
Second Car Prediction	TCP	When a hall is crowded to the extent that one car cannot accommodate all waiting passengers, the hall lantern of the next car to serve the hall will light up.	—	—	ⓞ
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.	ⓞ#7	ⓞ#7	ⓞ#7
Sonic Hall Button — Click Type	AHC	A click-type hall button which emits electronic beep sounds when pressed to indicate that the call has been registered.	ⓞ#7	ⓞ#7	ⓞ#7
Voice Guidance System	AAN-G	Information on elevator service such as the current floor or service direction is given to the passengers inside a car.	ⓞ	ⓞ	ⓞ

Notes: 1C-2BC (1-car selective collective) - Standard, 2C-2BC (2-car group control system) - 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 to 1C-2BC — = Not applicable
#1: Standard for EN81-20/50.
#2: Optional when the operation system is 1C-2BC.
#3: When 2C-2BC, please consult our local agents.
#4: Please consult our local agents for the production terms, etc.
#5: The DOAS cannot be combined with some features. Please refer to the ΣAI-2200C brochure for those features.
#6: Standard when DOAS is requested.
#7: Standard for EN81-70.
#8: EN81-20/50 is not applicable.

Work Not Included in Elevator Contract

The following items are excluded from our elevator installation work. Their conditions and other details are to be conformed to the statement of local laws or our requirements on 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, ventilation and waterproofing.
- 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 hoistway.
- The provision of a ladder to the elevator pit (if applicable).
- The provision of openings and supporting members as required for equipment installation.
- The provision of separate beams when the hoistway dimensions markedly exceed the specifications, and intermediate beams and separator partitions when two or more elevators are installed.
- The provision of an emergency exit door, inspection door and pit access door, when required, and access to the doors.
- All other work related to building construction.
- The provision of the main power and power for illumination, and their electrical switch boxes in the machine room, and laying of the wiring from the electrical room.
- The provision of outlets and laying of the wiring in the machine room and the hoistway, plus the power from the electrical switch box.
- 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.
- The power consumed in installation work and test operations.
- All the necessary building materials for grouting in of brackets, bolts, etc.
- 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 the process.
- 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 our elevator controller, when supplied by the building owner or general contractor.

Note: Work responsibilities in installation and construction shall be determined according to local laws.

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. Prevention against icing and condensation occurring due to a rapid drop in the temperature shall be provided in the machine room and elevator hoistway.
  c. 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 the 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.



State-of-the-Art Factories…
For the Environment. For Product Quality.

Our elevators and escalators are currently operating in approximately 90 countries around the globe. Built placing priority on safety, our elevators, escalators and building system products are renowned for their excellent efficiency, energy savings and comfort.
The technologies and skills cultivated at the Inazawa Building Systems Works in Japan and 12 global manufacturing factories are utilized in a worldwide network that provides sales, installation and maintenance in support of maintaining and improving product quality.
As a means of contributing to the realization of a sustainable society, we consciously consider the environment in business operations, proactively work to realize a low-carbon, recycling-based society, and promote the preservation of biodiversity.

ISO9001/14001 certification

Mitsubishi Elevator Asia Co., Ltd. has acquired ISO 9001 certification from the International Organization for Standardization based on a review of quality management. The plant has also acquired environmental management system standard ISO 14001 certification.

ISO 9001 BUREAU VERITAS Certification — UKAS MANAGEMENT SYSTEMS 0008

ISO 14001 BUREAU VERITAS Certification — UKAS MANAGEMENT SYSTEMS 0008

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

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