



**MITSUBISHI
ELECTRIC**

PASSENGER ELEVATORS
(MACHINE-ROOM-LESS SYSTEM)
Series-IP

Changes for the Better

Quality
in Motion

ELENESSA



Mitsubishi Elevators and Escalators are known as the
"Number One for Quality" for their exceptional comfort, safety and efficiency.
Real quality is not a static thing, however.
It keeps evolving and improving, and our new series of
machine-room-less elevators boasts even more quality benefits:
improved ride comfort, freedom of layout and universal design.

Number One for Quality

- ◆Energy and Space Savings
- ◆High-efficiency transport mechanism
- ◆Environment-conscious industrial waste treatment

EFFICIENCY

COMFORT

- ◆ Comfortable, quiet ride
- ◆ Smooth door operation
- ◆ Welfare awareness / Universal design

SAFETY

- ◆ Riding and boarding safety
- ◆ Safety in emergencies
- ◆ High reliability
- ◆ Safe service spots



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Mitsubishi Quality

Our optimized motor and equipment realize an incredibly smooth ride, high reliability and improved safety.

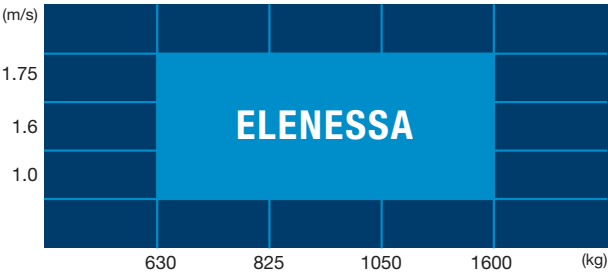
Freedom of Layout

Since all equipment is installed in the compact hoistway, architects have more freedom to design.

Universal Design

The elevator cars, controls and indicators are all designed to be simple for everyone to use.

APPLICATION



ELENESSA

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Note: The actual elevator color may differ slightly from that shown in this brochure.



Reduced torque ripple for a comfortable, smooth ride

The gearless traction machine with new PM (permanent magnet) motor is packed with cutting-edge technology, such as our unique stator-core structure and built-in double brakes. This optimized motor design dramatically reduces the level of torque ripple which positively affect the quality of the ride. So even though the machinery is more compact, the ride is smoother, quieter and more comfortable than ever before.

The new PM motor suppresses harmonic noise and torque ripple for a new level in ride comfort.



Innovative technology enhances efficiency and reliability

More technological advances, such as the high-accumulation LSI and low-noise PWM inverter, enable the VVVF inverter to deliver smooth, high-precision control of the traction machine. In addition, the IPU (Integrated Power Unit) acts as a high-efficiency power supply circuit for motor drive and, along with the PM motor, delivers great energy savings. The result is more efficient, more reliable drive control.

The slim control panel is packed with advanced technologies such as VVVF, PWM, and IPU.



THE Evolution of Mitsubishi Quality

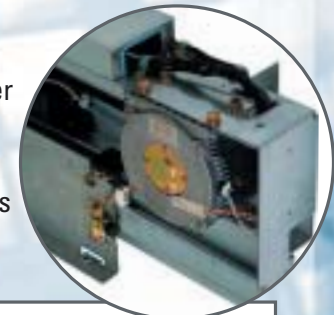
Mitsubishi Elevator quality is constantly evolving. The machine-room-less elevator boasts many proprietary technological advances that deliver a world-class ride in terms of comfort, reliability and safety.

Ensuring that quality remains first-rate

Our elevators include many features designed to reduce the need for maintenance--such as the double brakes built into the PM motor which remove the chance of objects falling into the brakes. When maintenance is necessary, the slim control panel is easily accessible from the maintenance platform on top of the elevator cage. In addition, Mitsubishi's highly-trained service personnel follow up after installation to ensure that our elevators always run smoothly and safely.

Smart door system improves safety

More than just saving space, the new direct-drive door system makes door opening and closing quieter and smoother than ever before. A high-performance chip also enhances the doors' sensitivity, so that door operation suits the precise conditions on each stopping floor. The door load detector makes operation safer since the doors re-open when abnormal pressure is applied.



The smart door system monitors floor conditions to ensure fast, safe door opening and closing.



More architectural freedom

Architects, builders, and even interior designers will appreciate the new design freedom that comes with the machine-room-less system. With all equipment installed in the hoistway, designers have far fewer restrictions on elevator placement and arrangement. There's no longer a need to include machine rooms in the plans, nor even factor load stress into the building structure*, since vertical elevator reaction loads are supported by guiderails.

**In case of rated loads 630kg to 1050kg.*

Smaller hoistway footprint

Despite the fact that all elevator equipment is now installed in the hoistway, the shaft footprint is actually 13% smaller than in previous models.* This miniaturization extends vertically too.

**With GPS-III for EN81-1 code areas P8-C0, rated speed of 1.0m/s, entrance width 800mm.*

Freedom of Layout

Now that all equipment is installed within the hoistway, there are far fewer restrictions on building design except for the actual space required for the shaft. Architects and interior designers have more design freedom than ever before.

Miniaturized and optimally-configured

Mitsubishi has succeeded in miniaturizing all key elevator equipment.

The gearless traction machine and compact PM motor are installed within the hoistway, and the slim control panel (98mm thick*) is now located on the shaft sidewall. This arrangement of equipment frees up space normally required for separate machine rooms or penthouses. The control panel and equipment are configured for easy maintenance, and the entire compact system is optimally organized for performance and service.

**In the case of rated loads 630kg to 1050kg.*

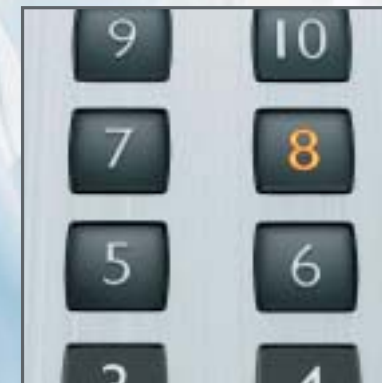
The PM motor (blue), slim control panel (yellow), and direct-drive door system (red) are all installed within the compact hoistway.

Full-height car operating panel

Installed in the side wall of the elevator cage, the car operating panel is visible as soon as the doors open. Compared to previous models, the buttons are slightly lower on the panel, bringing them within easy reach of all passengers. The full-height car operating panel with large, easy-to-read buttons and indicators makes it easy for anyone to operate the elevator safely and simply.

Tactile buttons

The tactile buttons have been designed to be easily understood to all passengers, including visually-impaired users. The new numeral design and contrasting color scheme make the buttons even easier to read than before. The buttons not only look different, they feel different too. The embossed numerals on a smooth base are pleasant to the touch.



Universal Design, Naturally

Car operating panel, buttons, indicators, and other parts, have all been redesigned to meet universal design concepts. Our elevators are designed to be easy for everyone to use and operate, as well as simple and safe to ride.



Thicker handrails

Easier to grasp and safer to hold, the handrails are now thicker than before (38mm diameter) and positioned slightly further from the wall.

Indicators and open button are all larger

Compared to previous models, the indicator numerals and the open button are much larger (approx. 1.6 times larger), making them much easier to read and use.





S00

- Lighting - Milky white globe (plastic cover made of resin)
- Ceiling - Painted steel sheet (Y031)
- Walls - Pattern-printed steel sheet (CP23)
- Transom panel - Pattern-printed steel sheet (CP23)
- Doors - Pattern-printed steel sheet (CP23)
- Front return panels - Stainless steel hairline
- Kickplate - Painted steel sheet (Y055)
- Flooring - Durable vinyl tiles (PR18)
- Car operating panel - CBE-N210 / Stainless steel hairline



CBE-N210



Micro stroke click button

Side Wall only



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

Notes
1: Key hole shape differs from this picture according to local regulations.
2: Hall button height can be lower than the picture above as a universal design.



PIE-A210
Micro stroke click button

N110

- Lighting - Indirect full lighting
- Ceiling - Painted steel sheet (Y055)
- Ceiling trim - Black alumite

(See Table "Specifications of Pictures" on page13 for other specifications.)



N110

N40

- Lighting - Half mirror and downlights
- Ceiling (both sides) - Painted steel sheet (Y055)
- Ceiling trim - Black alumite

(See Table "Specifications of Pictures" on page13 for other specifications.)



N40

N100

- Lighting - Indirect full lighting
- Ceiling - Arched milky white resin board
- Ceiling trim - Black alumite

(See Table "Specifications of Pictures" on page13 for other specifications.)



N100

N90

- Lighting - Indirect full lighting
- Ceiling - Acrylic blocks and milky white resin board
- Ceiling trim - Black alumite

(See Table "Specifications of Pictures" on page13 for other specifications.)



N90

N20

- Lighting - Central indirect downlights
- Ceiling - Painted steel sheet (Y033)

(See Table "Specifications of Pictures" on page13 for other specifications.)



N20

N30

- Lighting - Indirect full lighting
- Ceiling - Arched milky white resin board
- Ceiling trim - Black alumite

(See Table "Specifications of Pictures" on page13 for other specifications.)



N30



Car Finishes and Designs

Walls, transom panel and doors	Std.	Pattern-printed steel sheet
	Opt.	Painted 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
		MELART-II painting*5
		Stainless steel hairline door trims
		Incorporated glass windows*3
Front return panel	Std.	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. *1: Supplied by customer.
*2: Applied only to car walls.
*3: Applied only to car doors
*4: Car transom panel must be made of stainless steel in hairline finish.
*5: Not applied to car transom panels.
*6: Kickplate must be made of stainless steel in hairline finish.
2. Please consult us if other finishes are required.

N10

- Lighting
- Downlights
- Ceiling
- Painted steel sheet (Y055)
- (See the table below for other specifications.)

Specifications of Pictures (P.11 through P.13)

		N10	N20	N30	N40	N90	N100	N110
Walls	Pattern-printed steel sheet	CP43	CP63	CP33	CP53	CP31	CP23	CP43
Transom panel		CP43	CP63	CP33	CP53	CP31	CP23	CP43
Doors		CP43	CP63	CP33	CP53	CP31	CP23	CP43
Front return panels		Stainless steel hairline						
Kickplate (Painted steel sheet)		Y055	Y055	Y055	Y055	Y055	Y055	Y055
Flooring (Durable vinyl tiles)		PR18	PR45	PR62	PR86	PR62	PR18	PR13
Car operating panel		CBE-N210 / Stainless steel hairline						

Note: Other finishes are available. See Table “Car Finishes and Designs” above.

CAR OPERATING PANELS — Optional —

Car Operating Panels

Side Wall only



CBE-N210 (standard)



Micro stroke click button



CBV-N210



Vandal-resistant type micro stroke click button

Front Return Panel only



CBE-C210



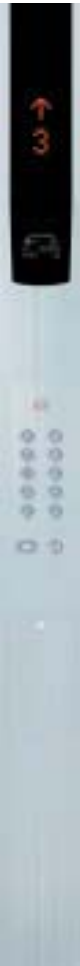
Micro stroke click button



CBE-C240*1



Micro stroke click button



CBV-C210



Vandal-resistant type micro stroke click button



CBJ-C210



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-N210/CBE-C210/CBE-C240)
	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)*2

Response light	LED lamp, yellow-orange when illuminated
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Notes
*1: CBE-C240 is a faceplate type car operating panel. The others are a full-height car operating panel.
*2: Please note that Flat-type (non-tactile) call buttons can not be used in countries where regulations, such as EN81-70, mandate specific measures for physically disabled passengers.

E-302 Splayed Jamb

E-202 Square Jamb



Jamb - Painted steel sheet (Y054)
Doors - Painted steel sheet (Y054)
Hall position indicator and call button - PIE-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
		MELART-II painting
		Incorporated glass windows

E-312 Splayed Jamb with Transom Panel

E-212 Square Jamb with Transom Panel



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

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

Notes
1: Key hole shape differs from this picture according to local regulations.
2: Hall button height can be lower than the picture above as a universal design.

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

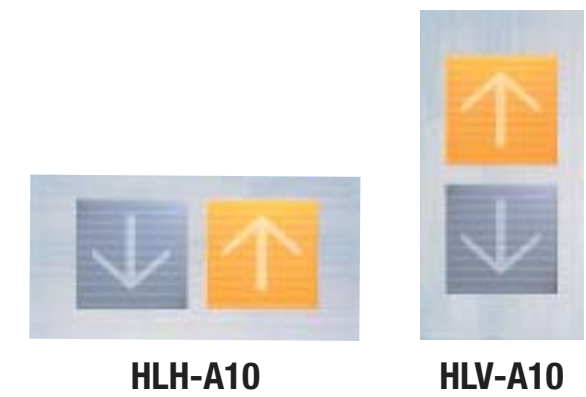


PIJ-C220
Round-type micro stroke click button

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

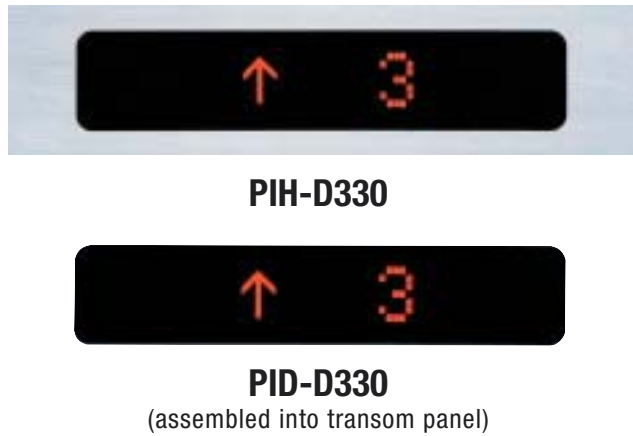
Note: *Please note that Flat-type (non-tactile) call buttons can not be used in countries where regulations, such as EN81-70, mandate specific measures for physically disabled passengers.

Hall Lanterns



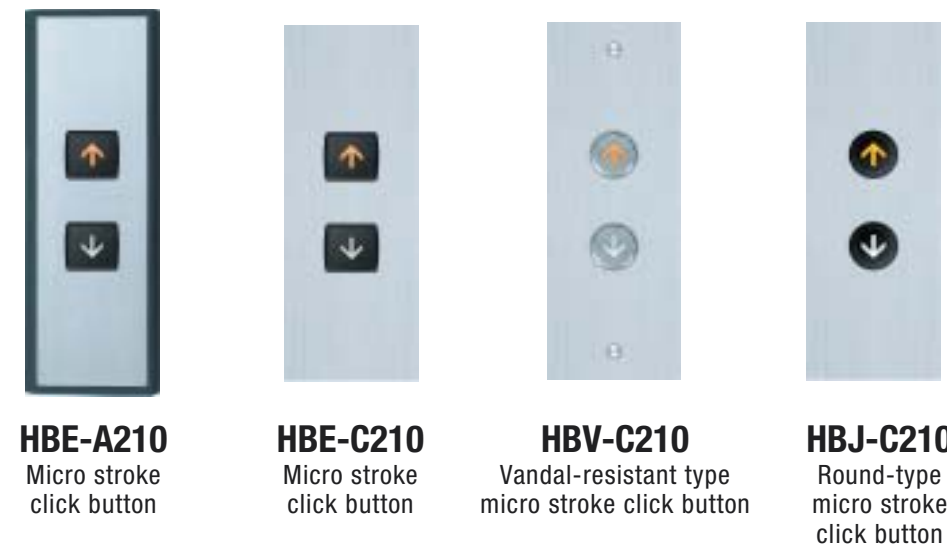
Faceplate	Stainless steel hairline
Indication block	Clear acrylic
Lighting	Incandescent lamp, yellow-orange when illuminated

Hall Position Indicators



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

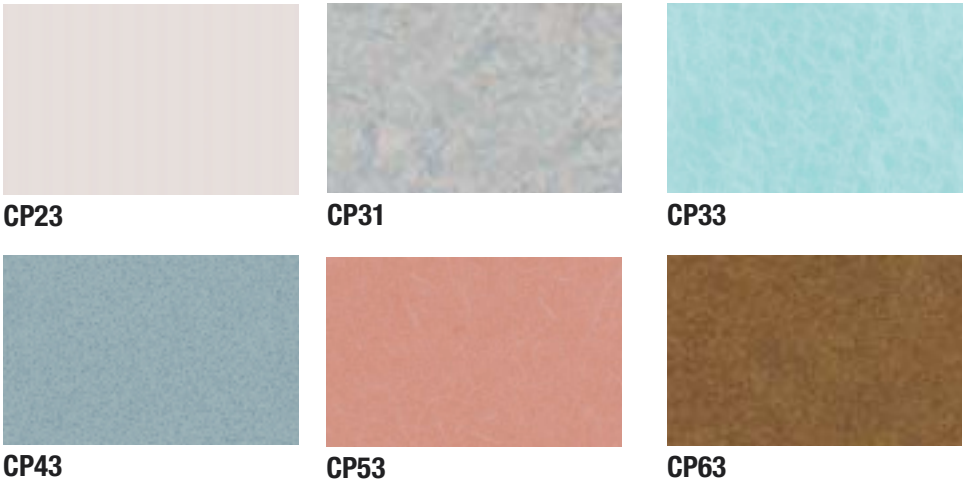


Faceplate	Stainless steel hairline with dark gray plastic case (HBE-A210)
	Stainless steel hairline (others)

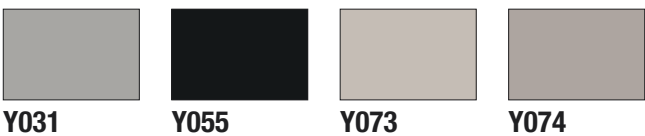
Call button	Micro stroke click and tactile button in gray plastic (HBE-A210/HBE-C210)
	Vandal-resistant type micro stroke click and tactile button in stainless steel matt (HBV-C210)
	Round-type micro stroke click button in gray plastic (HBJ-C210)*
Response light	LED lamp, yellow-orange when illuminated

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.

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



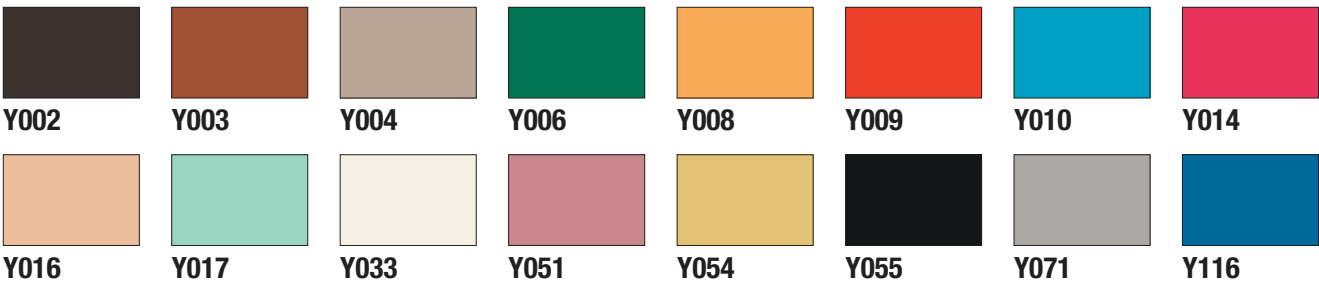
Painted Finish (for Car Ceiling)



Vinyl Tile (for Car Flooring)



Painted Finish (for Entrance Jambs and Doors: Standard, Car Walls and Doors: Optional)



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

Feature	Description	2BC	ΣAI-22
■ OPERATIONAL AND SERVICE FEATURES			
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 errors and clears them from the memory.	Ⓢ	Ⓢ
Continuity of Service (COS)	A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.	Ⓢ	Ⓢ
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 starts to maintain elevator operation, in the event of a microprocessor or transmission line in the group controller failing.	—	Ⓢ
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 will open.	Ⓢ	Ⓢ
Overload Holding Stop (OLH)	A buzzer 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.	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ
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.	Ⓢ	Ⓢ
Automatic Bypass (ABP)	A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency.	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
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
Landing Open (LO)	Doors start opening right before the car has completely stopped at a floor.	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
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
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
Non-Service to Specific Floors—Switch/Timer 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
Non-Service to Specific Floors—Switch/Timer Type (NS/NS-T)	Service to specific floors can be suspended by a manual or clock-operated switch.	⓪	⓪
Out-of-Service - Remote (RCS)	With a key switch on the Supervisory Control Panel or so on, 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
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.	⓪	⓪

Feature	Description	2BC	ΣAI-22
■ 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.	—	Ⓢ
Strategic Overall Assignment	The system predicts near-future car positions and hall calls. Car assignment is performed considering not only current but also such 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.	—	Ⓢ
Peak Traffic Control (PTC)	A floor which temporarily has the heaviest traffic will be served with higher priority than other floors, but not to an extent that interferes with 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.	—	Ⓢ
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.	—	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 [#]
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 as to adversely affect passenger waiting time.	—	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
Main Floor Parking (MFP)	An available car always parks on the main floor with the doors open to reduce passenger waiting time.	⓪	⓪
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.)	—	⓪ [#]
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 [#]
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.	—	⓪ [#]
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.)	—	⓪ [#]

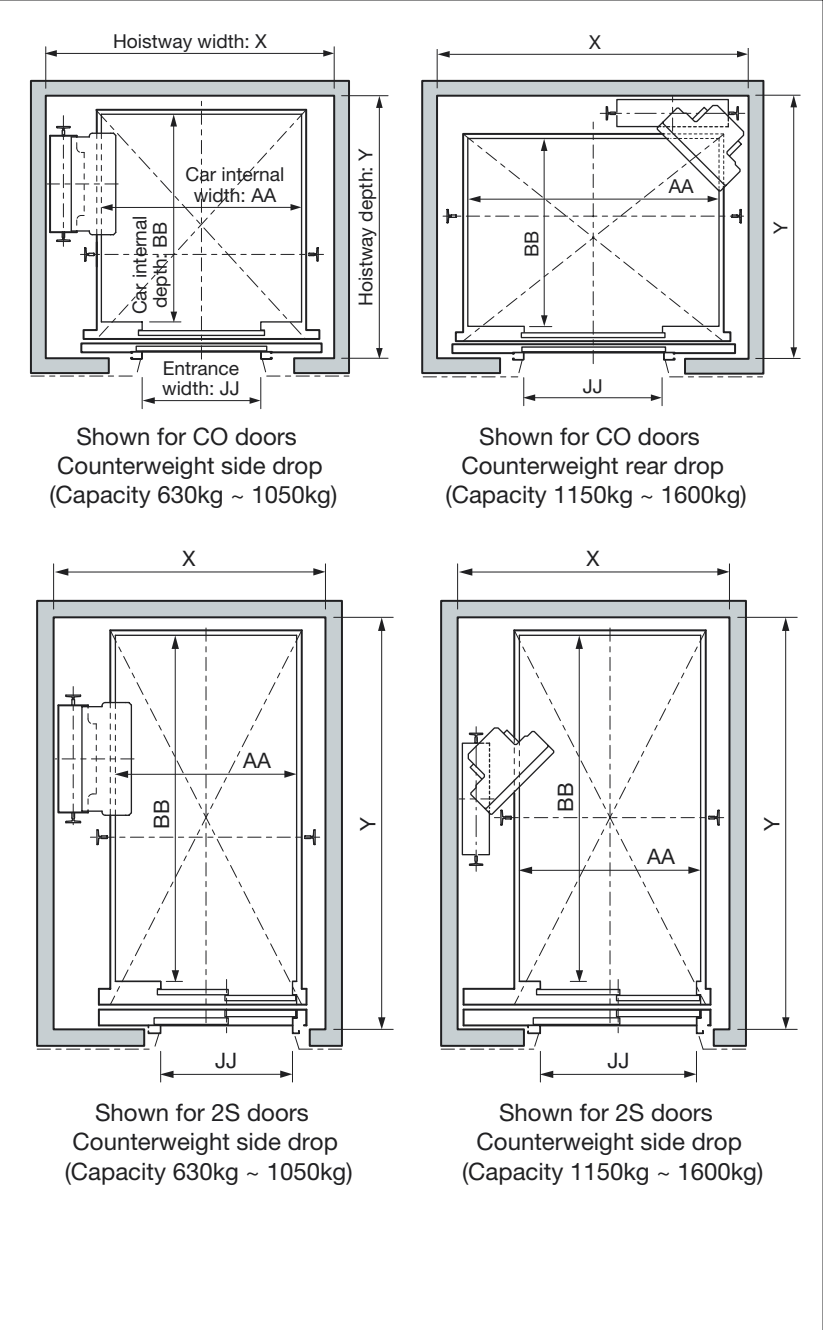
Notes: Ⓢ = Standard ⓪ = Optional — = Not applied # = Please consult us for the production term and so on.

Feature		Description	2BC	ΣAI-22
■ DOOR OPERATION FEATURES				
Door Load Detector (DLD)		When excessive door load has been detected while opening or closing, the doors immediately move in the reverse direction.	Ⓢ	Ⓢ
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-Open Time Adjustment (DOT)		The time which 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.	Ⓢ	Ⓢ
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 it consistent throughout all floors.	Ⓢ	Ⓢ
Door Nudging Feature—Without Buzzer (KNDG)		The doors slowly close when they have remained open for longer than the preset period	Ⓢ	Ⓢ
Repeated Door-Close (RDC)		Should an obstacle prevent the doors from closing, the doors will repeatedly open and close until the obstacle is removed.	Ⓢ	Ⓢ
Reopen with Hall Button (ROHB)		Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car.	Ⓢ	Ⓢ
Safety Ray (SR)	1 Beam	One or two infrared-light beams cover the full width of the door as it opens or closes to detect passengers or objects. (Cannot be combined with a multi-beam door sensor.)	Ⓢ	Ⓢ
	2 Beams		⓪	⓪
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 and so on.	⓪	⓪
Electronic Doorman (EDM)		Door open time is minimized using safety ray(s) or multi-beam door sensors that detect passengers boarding or exiting.	⓪	⓪
Safety Door Edge (SDE)	One Side	Sensitive door edges detect passengers or objects during door closing.	⓪	⓪
	Both Side (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.	⓪	⓪
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.)	⓪	⓪
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 the multiple infrared-light beams. (Cannot be combined with SR feature.)	⓪	⓪

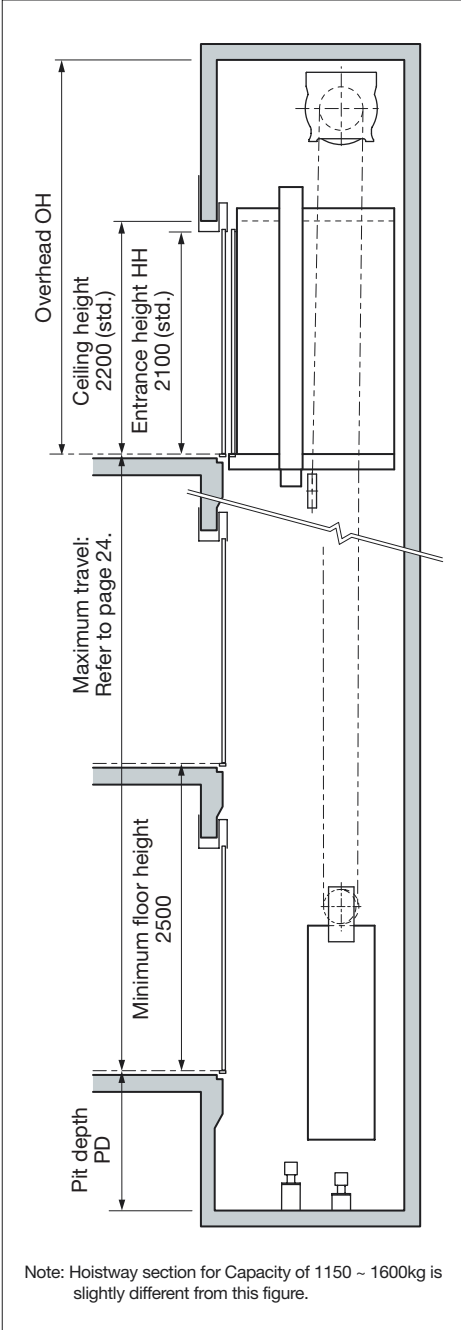
Feature		Description	2BC	ΣAI-22
■ SIGNAL AND DISPLAY FEATURES				
Car/Hall Click Type Call Buttons		Call buttons that click softly when you touch them are fitted as standard.	Ⓢ	Ⓢ
Inter Communication System (ITP)		A system which allows communication between passengers inside a car and the building personnel.	Ⓢ	Ⓢ
Basic Announcement (AAN-B)		A synthetic voice (and/or buzzer) alerts passengers inside a car to the fact that elevator operation has been temporarily interrupted by overloading or a similar cause. (Voice available only in English.)	⓪	⓪
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.)	⓪	⓪
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
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
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.	—	⓪
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.	⓪	⓪
■ EMERGENCY OPERATIONS AND FEATURES				
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.)	⓪	⓪
Earthquake Emergency Return (EER-P/EER-S)		In case of a 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.	⓪	⓪
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.	⓪	⓪
Fire Emergency Return (FER)		In case of a activation of a key switch or a building's fire sensors, all calls are canceled. All cars then immediately return to a specified evacuation floor and the doors open to ensure safe passenger evacuation.	⓪	⓪
Mitsubishi Emergency Landing Device (MELD)		In case of a 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.)	⓪	⓪
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 through personal computers. Special optional features, such as preparation of traffic statistics and analysis, are also available.	⓪	⓪
Operation by Emergency Power Source—Automatic/Manual (OEPS)		In case of a power failure, the building's emergency power moves and stops pre-determined cars at a specified floor, and the doors open to ensure passenger safety. After all pre-determined cars have arrived at the floor, normal operation will continue with only those cars.	⓪	⓪
Supervisory Panel (WP)		A panel installed in a building's supervisory room or so on, which monitors and controls each elevator's status and operations by remote, using indicators and switches provided on request.	⓪	⓪

Notes: Ⓢ = Standard ⓪ = Optional — = Not applied # = Please consult us for the production term and so on.

Hoistway Plan



Hoistway Section



Rated Load, Speed, Door Type, Car Internal Dimensions & Hoistway Dimensions

Code number	Number of persons *1	Rated load (kg)	Rated speed (m/sec)	Door type *2	Car internal dimensions (mm)	Entrance width JJ (mm)	Minimum hoistway dimensions (mm) *3					
					AAxBB		XxY *4	PD *6	OH *6			
P8	8	630	1.0	CO	1100x1400	900: Standard 800: Optional	1950x1720 (JJ= 900)*5 1800x1720 (JJ= 800)*5	1300	3600			
			1.6					1400	3750			
			1.75					1450	3850			
			1.0	2S			1650x1800 (JJ= 900) 1650x1800 (JJ= 800)	1300	3600			
			1.6					1400	3750			
			1.75					1450	3850			
P11	11	825	1.0	CO	1350x1400	900: Standard 800: Optional	2025x1720 (JJ= 900)*5 1925x1720 (JJ= 800)*5	1300	3600			
			1.6					1400	3750			
			1.75					1450	3850			
			1.0	2S			900: Standard 1100: Optional	1900x1800 (JJ= 900) 1950x1800 (JJ=1100)	1300	3600		
			1.6						1400	3750		
			1.75						1450	3850		
P14 wide type	14	1050	1.0	CO	1600x1400	1100: Standard 900: Optional	2350x1720 (JJ=1100)*5 2150x1720 (JJ= 900)*5	1300	3600			
			1.6					1400	3750			
			1.75					1450	3850			
			1.0	2S			1100	2150x1800	1300	3600		
			1.6						1400	3750		
			1.75						1450	3850		
P14 deep type	14	1050	1.0	CO	1100x2100	900: Standard 800: Optional	1950x2420 (JJ=900)*5 1800x2420 (JJ=800)*5	1300	3600			
			1.6					1400	3750			
			1.75					1450	3850			
			1.0	2S			1650x2500 (JJ= 900) 1650x2500 (JJ= 800)	1300	3600			
			1.6					1400	3750			
			1.75					1450	3850			
P17	17	1275	1.0	CO	2000x1400	1100	2490x1960*5	1550	4100			
			1.6					1650	4250			
			1.75					1700	4350			
			1.0	2S				1200x2300	1100	2065x2670	1550	4100
			1.6								1650	4250
			1.75								1700	4350
P21	21	1600	1.0	CO	2100x1600	1100	2590x2160*5	1550	4100			
			1.6					1650	4250			
			1.75					1700	4350			
			1.0	2S				1400x2400	1200	2215x2770	1550	4100
			1.6								1650	4250
			1.75								1700	4350

Specifications

Specifications		1.0 m/sec	1.6 m/sec	1.75 m/sec
Maximum number of stops	630kg, 825kg, 1050kg	22	30	
	1275kg, 1600kg		26	
Maximum travel (m)	630kg, 825kg, 1050kg	60	80	
	1275kg, 1600kg		70	
Minimum floor height (mm)		2500*7		

Notes

*1: Number of persons is calculated at 75kg per person, as required by EN81-1 code (1998). (Please inquire for non-EN code specifications.)

*2: CO: 2-panel center opening doors, 2S: 2-panel side opening doors (optional).

*3: Hoistway dimensions (X, Y, PD and OH) shown in the table are with standard specifications.

*4: Hoistway dimensions (X & Y) shown in the table are after pit waterproofing and do not include plumb tolerance.

*5: Hoistway dimensions (X & Y) should be increased if fireproof landing door is required.

*6: PD and OH dimensions should be increased when TR is over 30 meters.

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

Operation System

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

Legal Compliance

The ELENESSA Series-IP complies with EN81-1 code.
It can also comply with other national regulations, so please consult us.

IMPORTANT INFORMATION ON ELEVATOR PLANNING

Work Not Included in Elevator Contract

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

- Architectural finishing of 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 power-receiving panel and 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 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.

* Work responsibilities in installation and construction shall be determined according to local laws. Consult us for details.

Elevator Site Requirements

- The temperature of the 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 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