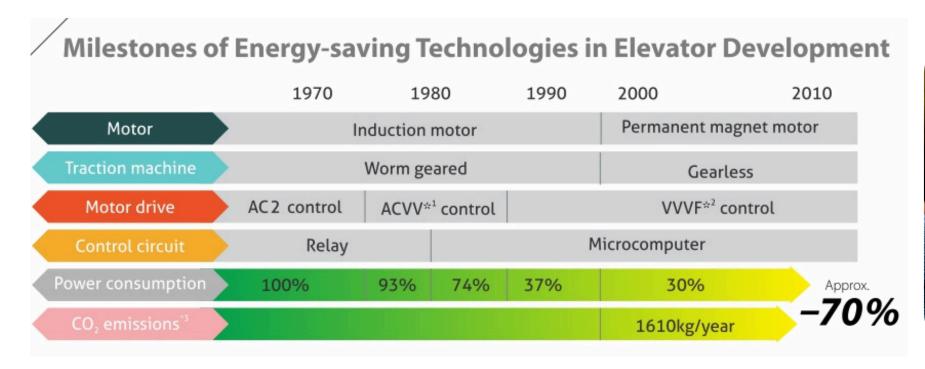
# For Address



# **Ecology**

## **Using Energy Wisely**

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





#### Traction Machine with PM Motor (PMP)

The joint-lapped core built into the PM motor of the traction machine features flexible joints. The iron core acts like a hinge, which allows coils to be wound around the core more densely, resulting in improved motor efficiency and compactness. A high-density magnetic field is produced, enabling lower use of energy and resources and reduced CO2 emissions.

Used for ceiling lights, LEDs boost the overall energy

performance of the building. Furthermore, a long service life

eliminates the need for frequent lamp replacement.

#### Permanent Magnet (PM) Door Motor

The direct-drive PM door motor and the VVVF inverter realize efficient door opening and closing.



Service life (hr)

Ceiling: L210S Power consumption (W) Car Light/Fan Shut Off – Automatic (CLO-A/CFO-A)

20 20 21 21 22 22 17 (7) 18 (8) 19 (9)

Ceiling: L210S LED downlights

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

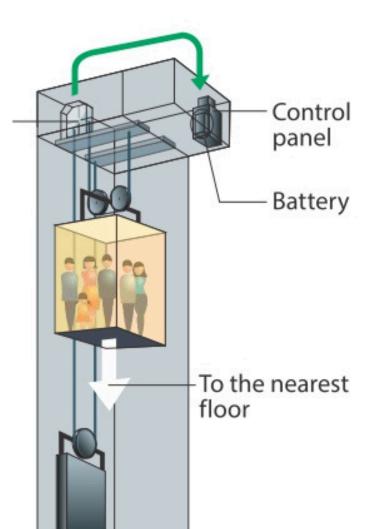
**LED Lighting** 

Advantage of LEDs

# Safety and Comfort

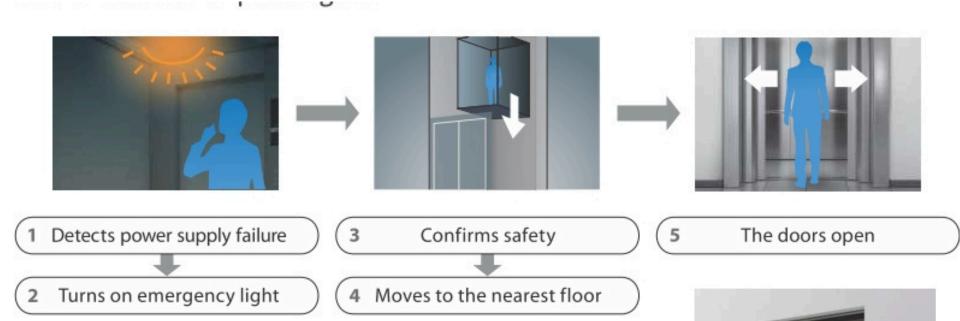
## Providing a Safe Ride

Whether the user is elderly or a person with special needs, our elevators deliver every passenger to the destination floor safely -and-comfortably-



## Khatri Elevators & Escalator Pvt. Ltd.

Upon power failure, the car automatically moves to the nearest floor using a rechargeable battery to facilitate the safe evacuation of passengers.



## Multi-beam Door Sensor

Multiple infrared-light beams cover a door height of approximately 1800mm to detect passengers or objects as the doors close.





## **User-friendly Features**

Great care is taken in the design and manufacture of each and every elevator part to ensure a comfortable, user-friendly ride.



## False Call Canceling- Car Button type (FCC-P)

If the wrong car button is pressed, it can be canceled by quickly pressing the same button again twice.

# Safety

At Khatri Elevators & Escalator Private Limited, our state-of-the-art manufacturing facility is the heart of our commitment to quality and innovation. Here's a glimpse into our meticulous factory and manufacturing process:



#### **MANUFACTURING PROCESS**

All manufacturing processes are approved by Mitsubishi elevators' mother factory, Inazawa Works in Japan, which ensures the highest quality

#### **DESIGN AND PLANNING**



**Conceptual Design:** The process begins with understanding the client's requirements and conceptualizing a design that meets those needs. This involves considering the type of building, load capacity, speed, and specific features like energy efficiency and safety measures.



**Detailed Engineering:** Once the concept is approved, detailed engineering designs are created. These include mechanical, electrical, and structural specifications. Computer-aided design (CAD) software is often used to produce precise drawings and simulations.

#### MATERIAL SELECTION AND PROCUREMENT

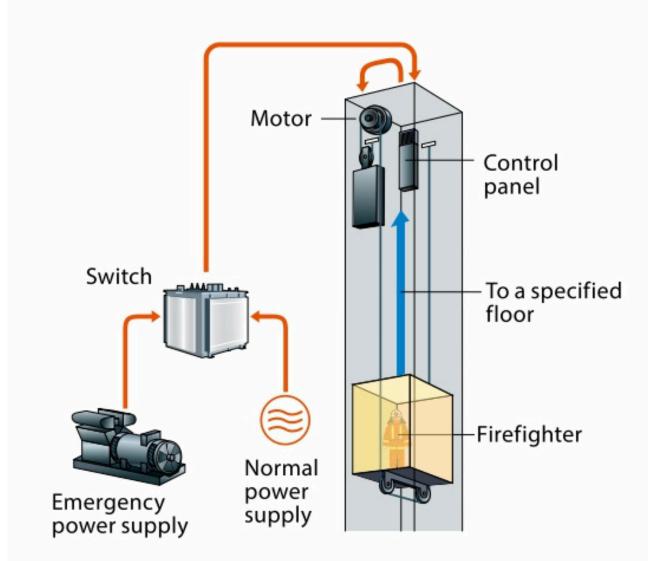


**Material Selection:** The quality of materials used is crucial for the durability and safety of the elevator. Common materials include steel for the framework, stainless steel for doors and cabin interiors, and high-strength ropes or belts for the lifting mechanism.



**Procurement:** Reliable suppliers are chosen to provide the raw materials. Ensuring the materials meet the necessary standards and certifications is essential.

#### FIRE

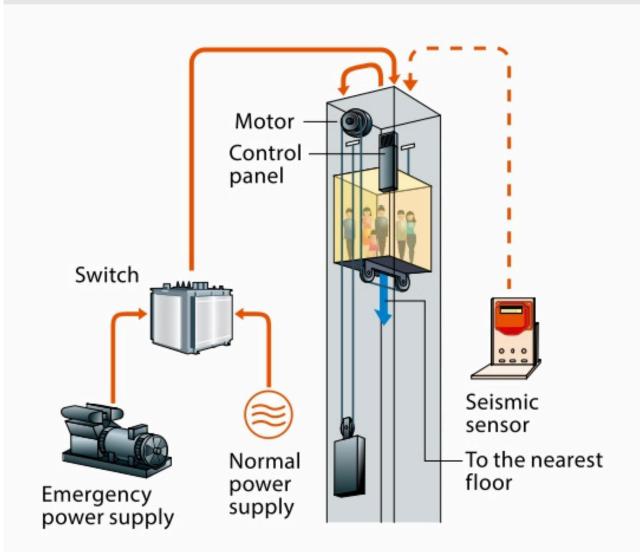


#### Firefighters' Emergency Operation: FE (Optional)

When the fire operation switch is activated, the car immediately returns to a predetermined floor.

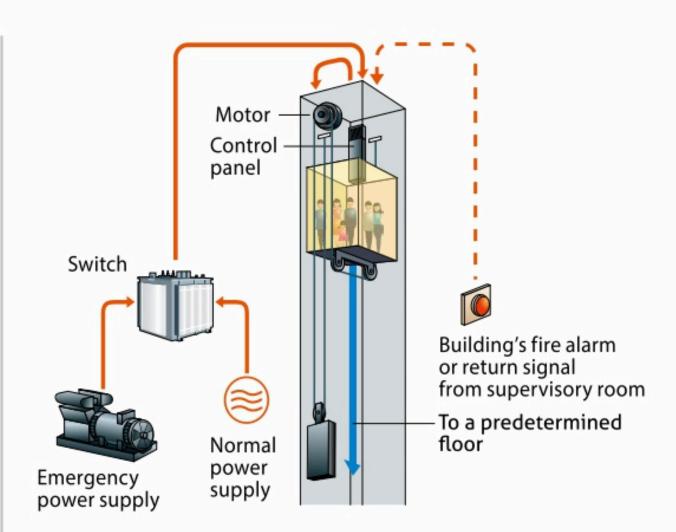
The car then responds only to car calls which facilitate firefighting and rescue operations.

#### **EARTHQUAKE**



# Earthquake Emergency Return: EER-S (Optional)

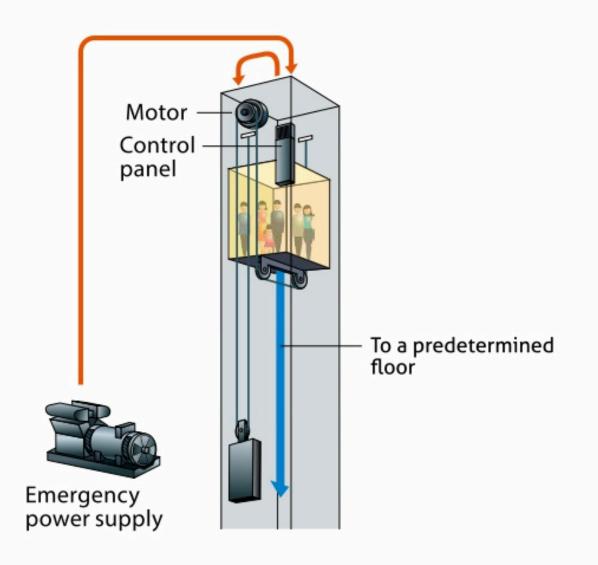
When a secondary wave seismic sensor is activated, all cars stop at the nearest floor and park there with the doors open to facilitate the safe evacuation of passengers.



#### Fire Emergency Return: FER (Optional)

When a key switch or a building's fire alarm is activated, all cars immediately return to a predetermined floor and open the doors to facilitate the safe evacuation of passengers.

#### **POWER FAILURE**



#### Operation by Emergency Power Source: Automatic OEPS (Optional)

Upon power failure, predetermined car(s) use a building's emergency power supply to move to a predetermined floor and open the doors for passengers to evacuate. After all cars have arrived, predetermined car(s) resume normal operation.

Dage

## **Car Designs**

## L210S

Ceiling: Stainless steel hairline-finish

Lighting: Downlights (LEDs)

#### **Car Design Example**

Walls — Stainless steel, hairline-finish
Transom panel — Stainless steel, hairline-finish
Doors — Stainless steel, hairline-finish
Front return panels — Stainless steel, hairline-finish
Kickplate — Stainless steel, hairline-finish
Flooring — Supplied by customer
Car operating panel — CBV1-N710

\* Emergency exit will be provided as option



#### **Car Finishes**

Materials/Finishes	Walls	Transom panel	Doors	Front return panels	Kickplate	Sill
Painted steel sheet	S	S	5			
Stainless steel, hairline-finish	0	0	0	S	S	
Stainless-steel, hairline-finish with etched pattern (SUS-HE)	0	0	0	0		
Stainless-steel, Gold Finish	0	0	0	0		
Extruded hard aluminum						S

Note that flooring is supplied by customer.

#### STANDARD DESIGN

**Overview:** Standard designs are typically used in residential buildings, commercial offices, and smaller establishments.

#### **FEATURES:**

- **Basic Interior:** Simple yet elegant interiors with standard materials like stainless steel or painted steel.
- **Lighting:** Standard fluorescent or LED lighting.
- **Flooring:** Vinyl or rubber flooring for durability and ease of cleaning.
- Capacity: Varies, typically ranging from 4 to 10 passengers.
- Control Panel: Basic control panel with floor buttons and emergency stop button.



## **N600S**

Ceiling: Stainless steel hairline-finish with rectangular slot pattern for ventilator

Lighting: Lighting on both sides

#### **Car Design Example**

Walls ———	Painted steel sheet [Neutral beige]
Transom panel ———	Painted steel sheet [Neutral beige]
Doors —	Painted steel sheet [Neutral beige]
Front return panels —	Stainless steel, hairline-finish
Kickplate ———	Stainless steel, hairline-finish
Flooring —	Supplied by customer
Car operating panel —	CBV1-C710

## **N600**

Ceiling: Painted steel sheet [Neutral beige]





Ceiling : Stainless steel hairline-finish with a milky white resin lighting cover

Lighting: Central lighting

#### Car Design Example

- 1일 라마니는 "라는 "마기가 기프라는다. — " ( )는 다시 ( ····· ) 라마이 ( ···· )	
Walls —	Painted steel sheet [Beige]
Transom panel ———	Painted steel sheet [Beige]
Doors —	Painted steel sheet [Beige]
Front return panels —	Stainless steel, hairline-finish
Kickplate ———	Stainless steel, hairline-finish
Flooring —	Supplied by customer
Car operating panel —	CBV1-S760

**S00** 

Ceiling: Painted steel sheet (White)





## Car Operating panels

#### **Car Operating Panels**







For side wall

For FRP





093

START MENU

- · Lighting can be turned on/off.
- Fan can be turned on/off.
- Attendant Service (AS) and Bypass (BP) setting (optional)\*1

Infrared Remote Control (EVRC-C) (optional)

A handy accessory, especially for exclusive

operation and changing lighting settings, etc.

#### **Color Application**

Pale yellow Neutral beige

[Car]

[Car] Walls, Transom Panel and Doors [Hall] Jamb and Doors

#### Painted finish\*2





CBV1-S760

Handrail

(CBV1-S766)\*3 & \*5

YH-59S(SUS-HL) CBV1-N710<sup>\*3</sup> (CBV1-N716)\*3 & \*5





[Hall]

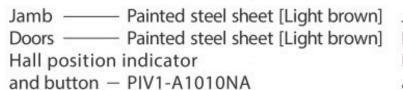
Blue

- \*1 AS or BP feature is applicable as an option only when EVRC-C is applied.
- \*2 For other finishes, please consult us.
- \*3 CBV1-S766, CBV1-N710 & CBV1-N716 will be applicable only P13 & P15.
- \*4 CBV1-C710 & CBV-C716 will be applicable only P13 & P15 (Except Deeper Cabin).
- \*5 The types in parentheses () show an auxiliary car operating panels (optional). The design is slightly different from the above images. Please consult us for further information such as installation location.

## Hall Design

#### E-102 Narrow Jamb







Jamb — Stainless steel, hairline-finish Doors — Stainless steel, hairline-finish Hall position indicator and button — PIV1-C710N



Jamb — Stainless steel, hairline-finish Doors — See-through doors Hall position indicator and button - PIV1-A1010NA

#### **Hall Finishes**

Materials/Finishes	Jamb	Doors	Sill
Painted steel sheet	S	S	
Stainless steel, hairline-finish	0	0	
Stainless-steel, hairline-finish with etched pattern (SUS-HE)		0	
Stainless-steel, Gold Finish	0	0	
Extruded hard aluminum			S

#### **Hall Position Indicators and Buttons**

#### With Plastic Case







PIV1-C710N PIV1-C720N







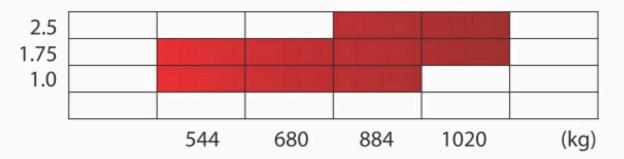


HLH-A16S

## Basic Specification - With Machine Room (MR)

#### **Application for MR**





#### **Horizontal Dimensions**

Code	Number	Rated	Rated	Door	Entrance width	Counter-	Car internal dimensions	With fireproof Gl	of SS Doors ass Doors)		
number	of persons	speed (m/sec)	capacity (kg)	type	(mm) ]]	Weight position	(mm) AA × BB	Minimum hoistway dimensions (mm) AH × BH	Minimum machine room dimensions (mm) AM × BM		
P8-CO	8		544		800 : Standard		1300×1100	1770 (1840) × 1675	1860 (1950) × 2950		
P6-C0	0		244	25	900 : Optional	Rear	1300 1100	1970 (2040) × 1675	2060 (2150) × 2950		
P10-C0		1.0			800 : Standard	Kedi	1300×1350	1770 (1840) × 1925	1860 (1950) × 3200		
P10-C0		1.0	****	СО	900 : Optional		1300/1330	1970 <mark>(2040)</mark> x 1925	2060 (2150) × 3200		
P10D-CO	10	1.75	680		800 : Standard	C:d= 1100v1600		1895 × 1965	1895 × 1965		
1100-00					900 : Optional	Side	1100×1600	1995 <mark>(2040)</mark> × 1965	1995 (2040) × 1965		
P10D-2S				25	900 : Optional			1735 × 2030	1735 × 2030		
					900 : Standard			2000 <mark>(2040)</mark> × 1925	2000 (2040) × 1950		
P13-C0							1000 : Optional		1600x1350	2200 <mark>(2240)</mark> × 1925	2200 <mark>(2240)</mark> × 1925
					1100 : Optional	Rear		2400 <mark>(2440)</mark> × 1925	2400 <mark>(2440)</mark> × 1950		
				8	900 : Standard	Kedi		2400 × 1675	2400 × 1700		
P13W-CO		1.0		со	1000 : Optional		2000x1100	2400 × 1675	2400 × 1700		
	13	1.75	884	AAAAAA S	1100 : Optional			2400 <mark>(2440)</mark> × 1675	2400 <mark>(2440)</mark> × 1700		
		2.5			900 : Standard			2075 x 2365	2075 × 2365		
P13D-CO					800 : Optional			1975 x 2365	1975 × 2365		
	ı .				1000 : Optional	Side	1100x2000	2175 (2240) x 2365	2175 (2240) × 2365		
D17D 3C				25	900 : Standard			1850 × 2430	1850 × 2430		
P13D-2S				23	1000 : Optional			1850 × 2430	1850 × 2430		
					900 : Standard			2000 (2040) × 2075	2000 (2040) × 2100		
P15-CO				(2)	1000 : Optional	Rear	1600×1500	2200 (2240) × 2075	2200 <mark>(2240)</mark> × 2100		
e.				-	1100 : Optional			2400 (2440) × 2075	2400 (2440) × 2100		
	1.5	1.75	1020	CO	900 : Standard			2075 × 2565	2075 × 2565		
P15D-CO	15	2.5	1020		800 : Optional			1975 x 2565	1975 x 2565		
	9				1000 : Optional	Side	1100x2200	2175 (2240) x 2565	2175 (2240) x 2565		
D1 ED 36				25	900 : Standard			1850 × 2630	1850 × 2630		
P15D-2S				23	1000 : Optional			1850 × 2630	1850 × 2630		

[Terms of the table]

• The contents of this table only apply to standard specifications. Please consult us for other specifications.

Rated capacity is calculated as 68kg per person.

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.

• This table shows the dimensions for IS3614-compliant fireproof doors.

Fireproof Glass doors are not applicable for 2S Doors.

• Fireproof Glass doors are applicable for all CO Doors. Same Hoistway dimension & Machine room dimension required wherever red font dimension not given.

#### **Vertical Dimensions**

Rated speed (m/sec)	Rated capacity (kg)	Travel (m) TR	Maximum number of stops	Minimum overhead (mm) OH	Minimum pit depth (mm) PD	Minimum Machine room clear height (mm) HM	Minimum floor to floor height (mm)
1.0	544, 680, 884	TR≦60	22	4400	1360		
1.75	544, 680, 884, 1020	TR≦90	34	4630	1410		
2.5	997 1030	TR≦90	34	4950	1900	2200	2610
2.5	884, 1020	90 <tr≦120< td=""><td>36</td><td>5050</td><td>2000</td><td></td><td></td></tr≦120<>	36	5050	2000		

[Terms of the table]

• The contents of this table only apply to standard specifications without counterweight safety. Please consult us for other specifications.

#### **Power Feeder Data**

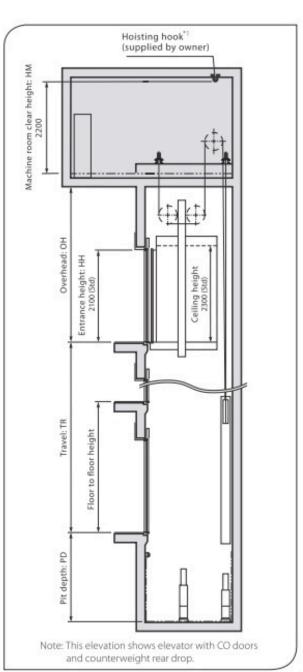
Capacity	Rated speed	Motor output	Current	at 400V	Capacity of	Breaker current	Heat
(kg)	(m/sec)	(kW)	FLU (A)	FLAcc (A)	power supply (kVA)	rating (A) 400V	emissions (W)
544	1.0	3.7	10	16	5	15	850
344	1.75	6.5	15	26	7	20	1500
680	1.0	4.6	12	19	5	15	1100
000	1.75	8.1	19	32	8	30	1900
	1.0	5.6	14	24	6	20	1400
884	1.75	9.7	24	41	10	30	2400
	2.5	14	33	58	14	50	3450
1020	1.75	11	27	47	12	40	2800
1020	2.5	16	38	66	16	50	3950

FLU: current during upward operation with full load at power supply voltage of 400V.

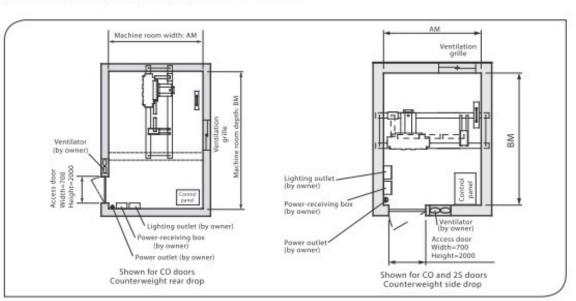
#### **Hoistway Plan**

# Holstway width: AH The stream of the stream

#### **Elevation**



#### **Machine Room Plan**



#### **Note - Operation System**

4 Car Group Control operation is available in 2.5 m/sec.

Note:

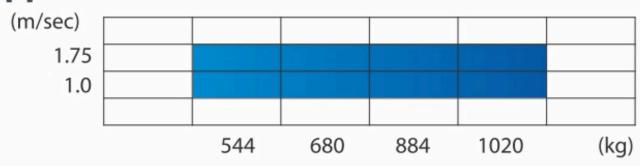
\*1 Each load is as follows. Hoists equipment: 20000N Traction machine: 20000N Control panel: 5000N

FLAcc: current while accelerating with full load at power supply voltage of 400V.

Note: If power supply voltage (E) is a value other than 400V, FLU current and FLAcc current are obtained via the following formula.  $(FLU/FLAcc\ current\ (A)\ at\ E\ (V)) = (Current\ at\ 400V)\times(400/E\ (V))$ 

## Basic Specification - Machine Room-Less (MRL)

#### **Application for MRL**



#### **Horizontal Dimensions**

Code number	Number of persons	Rated speed (m/sec)	Rated capacity (kg)	Door type	Entrance width (mm) ]]	Counter- Weight position	Car internal dimensions (mm) AA×BB	With fireproof SS Doors (Fireproof Glass Doors)  Minimum hoistway dimensions (mm) AH×BH
DO 60				СО	800 : Standard			1820 (1840) × 1735
P8-CO	8		544		900 : Optional		1100×1300	2000 (2040) × 1735
P8-2S				25	900 : Optional		V-9 F-97 - EU/2-8-0-7-3-10-3-4-1-3-0	1650 x 1740
D10.C0					800 : Standard		1300×1350	1920 × 1735
P10-C0				со	900 : Optional		1300*1330	2025 <mark>(2040)</mark> × 1735
P10D-CO	10		680	CO	800 : Standard			1820 (1840) × 1935
F10D-C0					900 : Optional		1100×1600	2000 (2040) × 1935
P10D-2S				25	900 : Optional			1650 x 2000
					900 : Standard			2175 × 1735
P13-C0					1000 : Optional		1600×1350	2275 × 1735
		3000		со	1100 : Optional			2400 <mark>(2440)</mark> × 1735
	13	1.0	884	CO	900 : Standard	Side		2000 (2040) x 2335
P13D-CO	13	1.75	004	2	800 : Optional	Side		1820 (1840) x 2335
					1000 : Optional		1100×2000	2200 <mark>(2240)</mark> x 2335
P13D-2S				25	900 : Standard			1650 × 2400
P13U-23				23	1000 : Optional			1865 x 2400
					900 : Standard			2175 × 1835
P15-C0					1000 : Optional		1600×1500	2275 × 1835
					1100 : Optional			2400 <mark>(2440)</mark> × 1835
	15		1020	CO	900 : Standard			2000 (2040) × 2535
P15D-CO	13		1020		800 : Optional			1820 (1840) x 2535
ć					1000 : Optional		1100×2200	2200 <mark>(2240)</mark> x 2535
P15D-2S				25	900 : Standard			1650 × 2600
F130-23				23	1000 : Optional			1865 × 2600

• The contents of this table only apply to standard specifications. Please consult us for other specifications.

Rated capacity is calculated as 68kg per person.

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.

• This table shows the dimensions for IS3614-compliant fireproof doors.

• Fireproof Glass doors are not applicable for 2S Doors

• Fireproof Glass doors are applicable for all CO Doors. Same Hoistway dimension required wherever red font dimension not given.

#### **Vertical Dimensions**

Rated	Travel	Maximum	Minimu	ım overhead (ı	mm) OH	Minimum	Minimum
speed	speed (m)			Ceiling Type		pit depth (mm)	floor to floor height
(m/sec)	TR	stops	S00 / S00S	L210S	N600 / N600S	PD	(mm)
1.0	TR ≦30	22	3750	3800	3700	1300	
1.0	30 <tr≦60< td=""><td>22</td><td>3800</td><td>3850</td><td>3750</td><td>1300</td><td></td></tr≦60<>	22	3800	3850	3750	1300	
	TR≦30		3950	4000	3900	1600	2610
1.75	30 <tr≦60< td=""><td>28</td><td>4000</td><td>4050</td><td>3950</td><td>1700</td><td></td></tr≦60<>	28	4000	4050	3950	1700	
1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 ( 1 (	60 <tr≦80< td=""><td></td><td>4150</td><td>4200</td><td>4100</td><td>1750</td><td></td></tr≦80<>		4150	4200	4100	1750	

[Terms of the table]

• The contents of this table only apply to standard specifications without counterweight safety. Please consult us for other specifications.

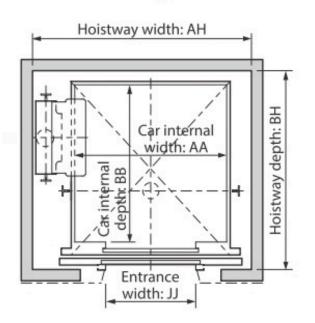
#### **Power Feeder Data**

Capacity	Rated	Motor	Current	at 400V	Capacity of	Breaker current	Heat
(kg)	speed (m/sec)	output (kW)	FLU (A)	FLAcc (A)	power supply (kVA)	rating (A) 400V	emissions (W)
	1.0	3.7	9	15	4	15	850
544	1.75	6.5	15	25	6	20	1340
	1.0	4.6	12	20	5	15	1100
680	1.75	8.1	20	34	8	30	1780
	1.0	5.6	14	24	6	20	1260
884	1.75	9.7	23	40	10	30	2060
1020	1.0	6.2	16	27	7	20	1420
	1.75	11	26	46	11	40	2340

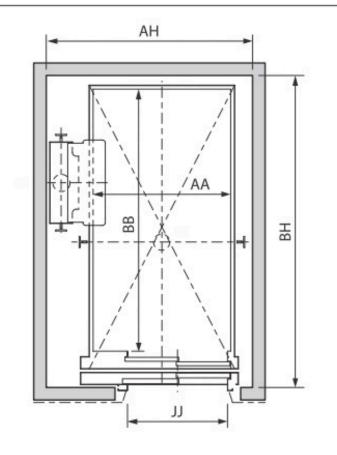
FLU: current during upward operation with full load at power supply voltage of 400V. FLAcc: current while accelerating with full load at power supply voltage of 400V.

Note: If power supply voltage (E) is a value other than 400V, FLU current and FLAcc current are obtained via the following formula. (FLU/FLAcc current (A) at E (V)) = (Current at 400V) × (400/E (V))

#### **Hoistway Plan**



#### Shown for CO doors Counterweight side drop

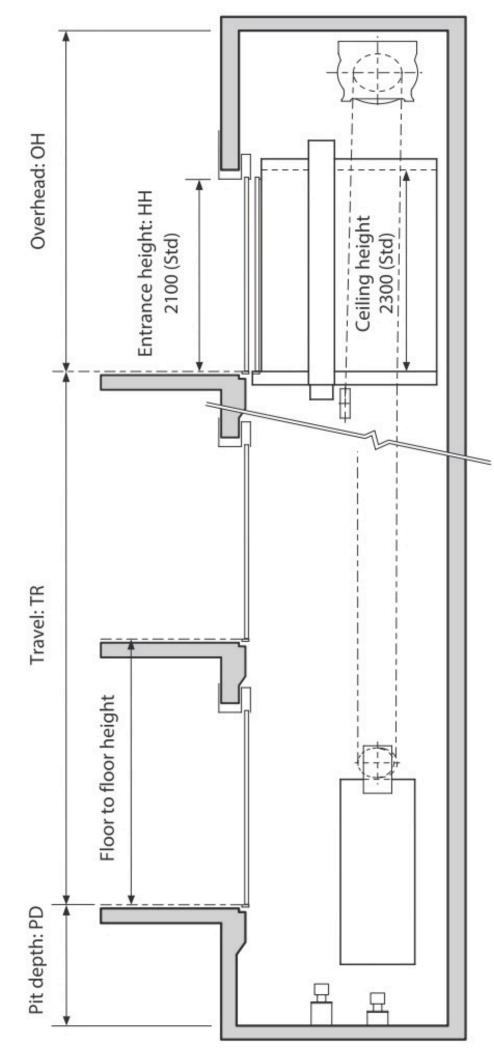


Shown for 2S doors Counterweight side drop

#### Note - Operation System

4 Car Group Control operation is available in MRL.

#### **Hoistway Section**



## Features

#### **Standard Features**

Feature	Abbreviation	Description	1 Car	2 Car	3 Car
Mitsubishi Emergency Landing Device	MELD	Upon power failure, a car equipped with this function automatically moves to 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 is 10 meters.)	S	S	S
Emergency Bell	ЕМВ	A system for entrapped passengers in a car to contact a person outside by pressing the alarm button on the car operating panel.	S	S	S
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-charge battery.)	S	S	S
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.	S	S	S
Automatic Door Speed Control	DSAC	Door load on each floor, which can depend on the type of hall door, is monitored to adjust the door speed, thereby making the door speed consistent throughout all floors.	S	S	S
Reopen With Hall Button	ROHB	Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car.	S	S	S
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.	S	S	S
Door Nudging Feature- with Buzzer	NDG	A buzzer sounds and the doors slowly close when they have remained open for longer than the preset period. With AAN-G, a beep and voice guidance sound instead of the buzzer.	S	S	S
Door Load Detector	DLD	When excessive door load has been detected while opening or closing, the doors immediately reverse.	S	S	S
Multi-Beam Door Sensor	-	Multiple infrared-light beams cover some of the height and full width of the doors. Closing doors can be reopened when one infrared-light beam is interrupted.	S	S	S
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 low speed and the doors will open.	S	S	S
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.	5	S	S
Continuity of Service	cos	A car which is experiencing trouble is automatically withdrawn from group control operation to maintain overall group performance.	-	S	S
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.	S	S	S
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.	S	S	S
Car Fan Shut Off- Automatic	CFO-A	Car ventilation fan shut off automatically to conserve energy if there are no calls for a specified period.	S	S	S
Car Light Shut Off- Automatic	CLO-A	Car lighting shut off automatically to conserve energy if there are no calls for a specified period.	S	S	S
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.	-	S	S
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.	S	S	S
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.	S	S	S

Car Computer Backup Operation	ССВК	Failure of a car controller is immediately reported to the control system. The car parks at the next stop and opens the doors so that passengers exit.	S	5	S
Hall Computer Backup Operation	НСВК	Failure of a hall controller is immediately reported to the control system. The car parks at the next stop and opens the doors so that passengers exit.	5	S	S
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.	-	S	S
Car Top Buzzer	СТВZ	According to elevator operating condition, various buzzers are provided.	S	S	S

#### **Optional Features**

Feature	Abbreviation	Description		2 Car	3 Car
Operation by Emergency Power Source - Automatic Only	OEPS-SA	Upon power failure, predetermined car(s) use a 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, predetermined car(s) will resume normal operation.		А	А
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 facilitate the safe evacuation of passengers.		А	А
Firefighter's 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 pre-determined floor. The car then responds only to car calls which facilitate fire-fighting and rescue operations.		А	А
Earthquake Emergency Return	EER-S	Upon activation of seismic sensors, all cars stop at the nearest floor, and park there with the doors open to facilitate the safe evacuation of passengers.	А	А	А
Emergency Stop with Switch	EMS	This feature is provided on the car operating panel and makes the running car stop in case of emergency.	А	А	А
Contact Supply of Elevator State Signal for BA/BMS	CSB	The signals of elevator state are output to the BA (Building Automation)/BMS (Building Management System) by contacts.	А	А	А
Car Arrival Chime-Car	AECC'2	Electronic chimes sound to indicate that a car will soon arrive.  (The chimes are mounted either on the top and bottom of the car.)	А	А	А
Car Arrival Chime - Hall	AECH" <sup>2</sup>	Electronic chimes sound to indicate that a car will soon arrive. (The chimes are mounted in each hall.) 1	А	А	Α
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. (English only)	А	А	Α
Inter-Communication System	ITP	A system which allows communication between passengers inside a car and the building personnel.	А	А	А
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.	A	А	А
Elevator Remote Control - Car	EVRC-C	A handy accessory, especially for exclusive operation and changing lighting settings, etc.	A	А	А
Main Floor Parking	MFP	An available car always parks on the main (lobby) floor with the doors open.	А	А	А

S = Standard A = Optional

<sup>\*1</sup> AECH will be applicable along with Selection of Hall Lantern only \*2 AECC & AECH cannot be selected together

#### **Entrance Layout Drawings**

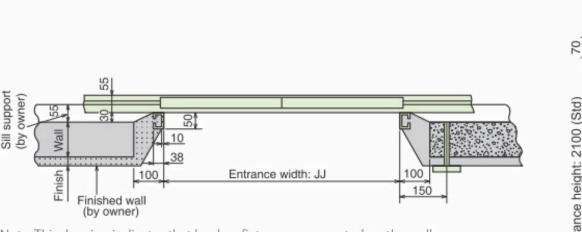
#### E-102

CO

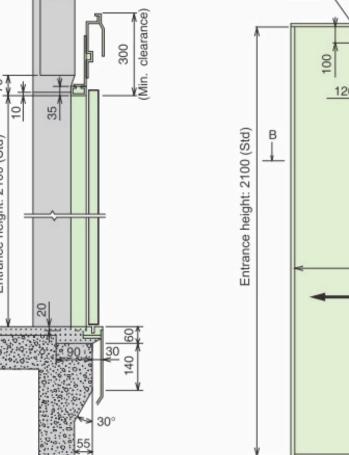
#### Door plan (section B-B)

#### Door elevation (section A-A)

#### **Hoistway entrance**



Note: This drawing indicates that boxless fixtures are mounted on the wall.



25

#### Door plan (section B-B)

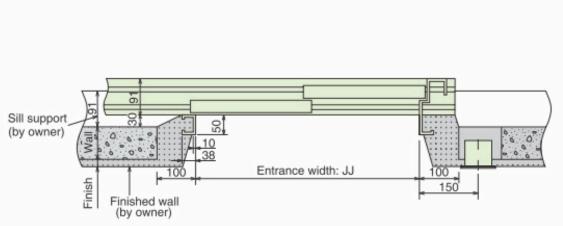
#### Door elevation (section A-A)

#### Hoistway entrance

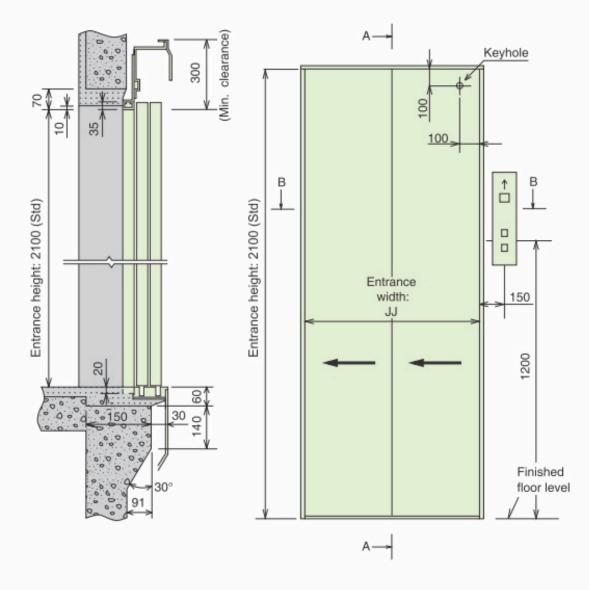
A-

Finished

floor level



Note: This drawing indicates that fixtures with the back box are mounted on the wall.



## Important Information on Elevator Planning

#### **Work Not Included in Elevator Contract**

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

- Construction of the elevator machine room with proper beams and slabs, equipped with a lock, complete with illumination, 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 elevator hoistway.
- The provision of cutting the necessary openings and joists.
- Separate beams, when the hoistway dimensions markedly exceed the specifications, and intermediate beams when two or more elevators are installed.
- · All other work related to building construction.
- The machine room power-receiving panel and the electrical wiring for illumination, plus the electrical wiring from the electrical room to the power-receiving panel.
- The laying of conduits and wiring between the elevator pit and the terminating point for the devices installed outside the hoistway, such as the emergency bell, intercom, monitoring and security devices, etc.
- The power consumed in installation work and test operations.
- 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 Mitsubishi Electric's elevator controller, when supplied by the building owner or general contractor.
- Statutory approvals for elevator erection permission and operating license, as State wise.
- \* Work responsibilities in installation and construction shall be determined according to local laws. Please consult us 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. A relative humidity below 90% on a monthly average and below 95% on a daily average.
- b. Prevention shall be provided against icing and condensation occurring due to a rapid drop in temperature in the machine room and elevator hoistway.
- c. The machine room and 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 floors to be served or number of elevator landings along with non-stop and Emergency landing floor items.
- The total elevator travel and each floor-to-floor height.
- · Operation system.
- Selected design and size of car.
- Entrance design.
- · Signal equipment.
- A schematic diagram 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.



L400

Softly lit illuminated ceiling with a sparkling slitted frame







#### Car Design Example

Ceiling (L400) -Panel: Painted steel sheet [Y055: Dark gray] Lighting: Indirect lighting (LEDs) Walls Pattern-printed steel sheet [CP121: Primary grain] Transom panel — Pattern-printed steel sheet [CP121: Primary grain] Doors -Pattern-printed steel sheet [CP121: Primary grain] Front return panels — — SUS-HL Kickplate SUS-HL Flooring PR803: Gray Car operating panel — CBV1-C730 YH-59S Handrail

Contrast of light and shadows using sharp lines







#### Car Design Example

Ceiling (L410)	Panel: Painted steel sheet [Y033: White] with slits Lighting: Slit lighting (LEDs)
Walls —	- SUS-M
Transom panel ———	- SUS-M
Doors —	- SUS-M
Front return panels —	- SUS-M
Kickplate —	- SUS-HL
Flooring —	PR812: Dim-gray
Car operating panel —	- CBV3-C730 (faceplate: SUS-M)
Handrail —	

#### Twinkling lights through chandelier-like lighting panel







#### Car Design Example

Panel: Painted steel sheet [Y033: White] Ceiling (L200) with an acrylic lighting cover

Lighting: Central lighting and downlights (LEDs)

Walls -SUS-HE (EPA-4) Transom panel — - SUS-HE (EPA-4) - SUS-HE (EPA-4) Doors — - SUS-HL Front return panels — Kickplate -SUS-HL

PR810: Ocher Flooring — CBV1-C760 Car operating panel — Handrail - YH-59M

> Note: Position of central lighting differs from images shown above when an emergency exit (the area shown in blue) is required.

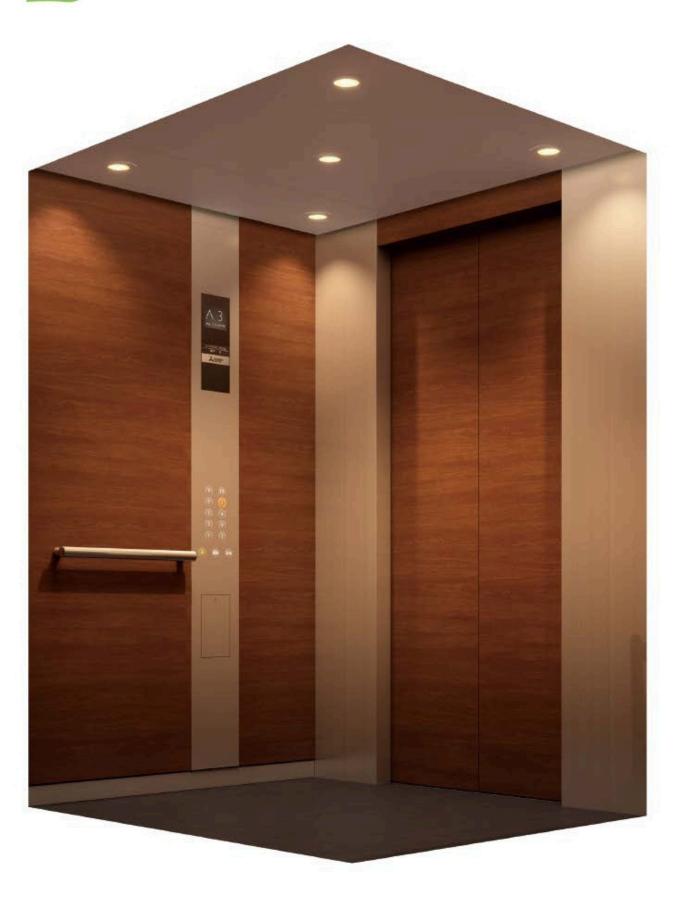


Optional Ceiling Design **L2005** Panel: SUS-HL Others: Same as L200.

Actual colors may differ slightly from those shown. Please refer to page 14 for the meaning of SUS-HL, SUS-HE and SUS-M.

5

X.COM





#### **Car Design Example**

Ceiling (L210) Panel: Painted steel sheet [Y033: White] Lighting: Downlights (LEDs) Walls Pattern-printed steel sheet [CP111: Dark grain] Transom panel Pattern-printed steel sheet [CP111: Dark grain] Pattern-printed steel Doors sheet [CP111: Dark grain] SUS-HL

Front return panels -SUS-HL Kickplate – Flooring -PR812: Dim-gray Car operating panel -- CBV1-N730 YH-59S Handrail -



Optional Ceiling Design **L210S** Panel: SUS-HL Others: Same as L210.

Beautifully arched panel with shaded gradation







#### Car Design Example

Ceiling (L310) Panels: [Center] Metal-like resin panel [Sides] Milky white resin panels Lighting: Full lighting (LEDs)

SUS-HL Walls -Transom panel -SUS-HL SUS-HL Doors -SUS-HL Front return panels -SUS-HL Kickplate PR803: Gray Flooring — - CBV1-N730 Car operating panel



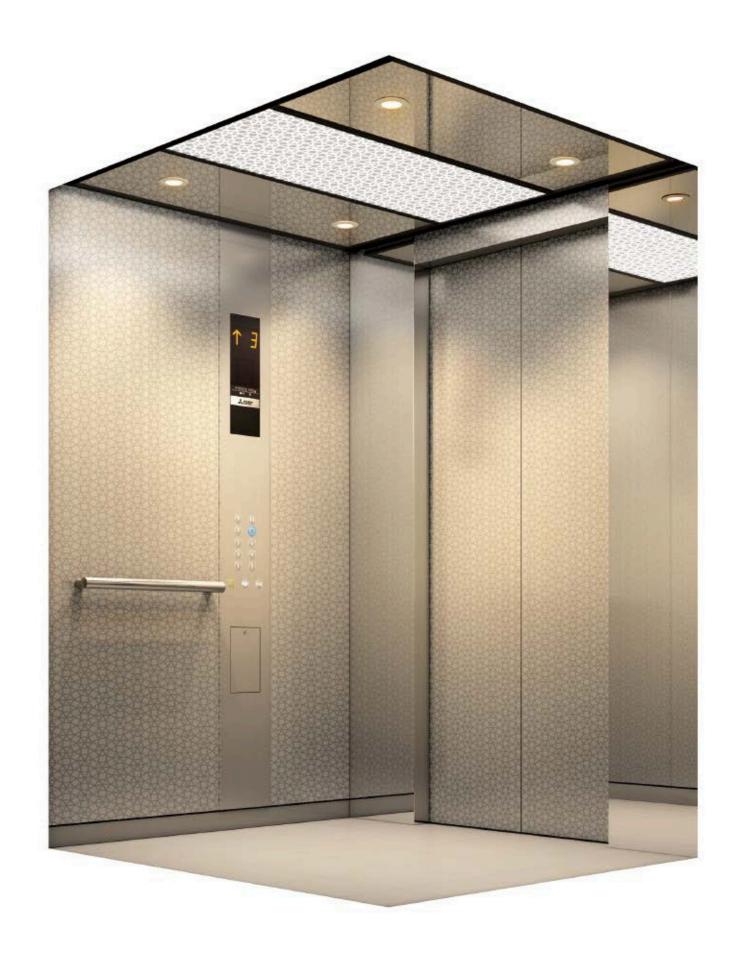
#### Car Design Example

Ceiling (N300) Panel: Painted steel sheet [Y033: White] Lighting: Central indirect lighting and downlights Walls Pattern-printed steel sheet [CP23: Minimal stripe] - SUS-HL Transom panel – - SUS-HL Doors — - SUS-HL Front return panels — Kickplate -- SUS-HL Flooring -– PR801: Cream beige Car operating panel — - CBV1-N710 Handrail -- YH-59S

Optional Ceiling Design N300S
Panel: SUS-HL
Walls: SUS-HL
Others: Same as N300.

N120

Gorgeous ceiling with lustrous translucent panels fused using refined geometric patterns





#### **Car Design Example**

Panels: [Center] Milky white resin panel Ceiling (N120) [Sides] Resin panels with mirrored surface Lighting: Central lighting and downlights Walls -SUS-HE (EPA-3) Transom panel — - SUS-HE (EPA-3) Doors — SUS-HE (EPA-3) Front return panels — — SUS-M SUS-HL Kickplate -PR801: Cream beige Flooring — Car operating panel — CBV5-N710 YH-59M Handrail

Actual colors may differ slightly from those shown.

Please refer to page 14 for the meaning of SUS-HL, SUS-HE and SUS-M.

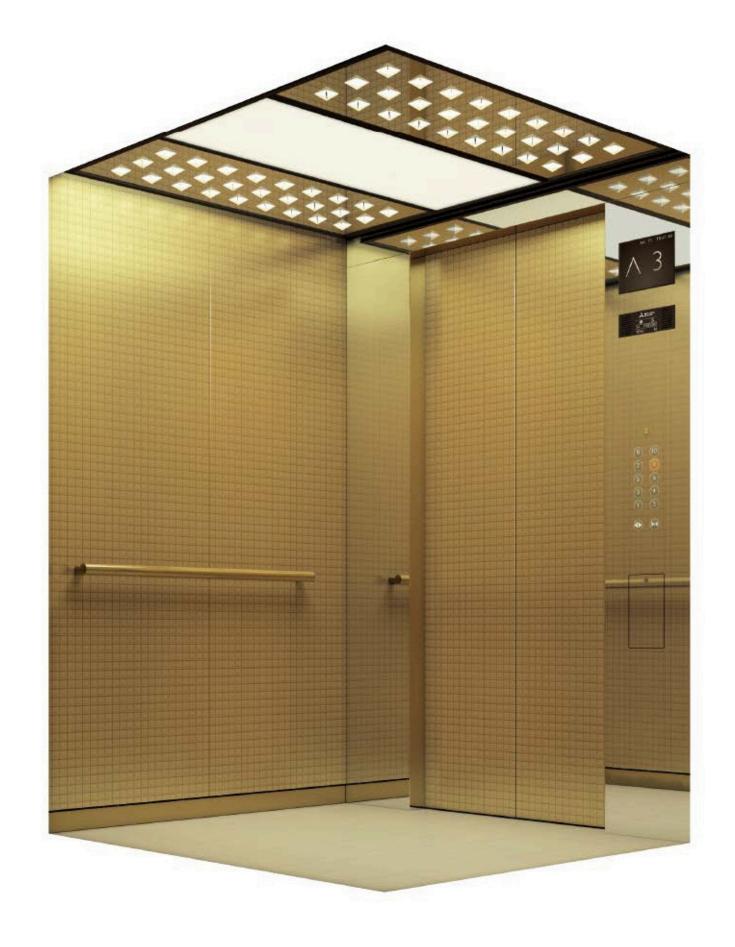




#### Car Design Example

Ceiling (N130) Panel: Milky white resin panels Lighting: Full lighting Walls — Colored (bronze) SUS-HE (EPA-2) Transom panel — Colored (bronze) SUS-HE (EPA-2) Doors — Colored (bronze) SUS-HE (EPA-2) Front return panels —— SUS-HL Kickplate Colored (bronze) SUS-HL Flooring PR812: Dim-gray CBV1-N710 (faceplate: SUS-M) Car operating panel —

Stylish ceiling accented with crystal-like blocks





#### Car Design Example

Ceiling (N140)	Panels: [Center] Milky white resin panel
	[Sides] Resin panels with mirrored surface and acrylic blocks
	Lighting: Full lighting
Walls —	Colored (gold) SUS-HE (EPA-1)
Transom panel ———	SUS-M
Doors —	Colored (gold) SUS-HE (EPA-1)
Front return panels —	SUS-M
Kickplate —	Colored (gold) SUS-HL
Flooring —	PR810: Ocher
Car operating panel —	CBV1-D740 (faceplate: SUS-M)
Handrail	YH-59G

Actual colors may differ slightly from those shown.

Please refer to page 14 for the meaning of colored SUS-HL, colored SUS-HE and SUS-M.







#### Simple and easy to coordinate with various car designs

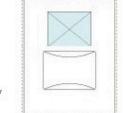




#### Car Design Example-1

Ceiling (S00)	Panel: Painted steel sheet [Y033: White] with a milky white resin lighting cover
	Lighting: Central lighting
Walls —	SUS-HL
Transom panel ——	SUS-HL
Doors —	SUS-HL
Front return panels —	SUS-HL
Kickplate ———	Aluminum
Flooring —	PR803: Gray
Car operating panel —	CBV1-C760
Handrail ————	YH-59S

Note: Position of central lighting differs from images shown above when an emergency exit (the area shown in blue) is required.



#### Car Design Example-2

Ceiling (S00) ———	Same as Car Design Example-1
Walls —	Painted steel sheet [Y004: Beige
Transom panel ———	Painted steel sheet [Y004: Beige
Doors —	Painted steel sheet [Y004: Beige
Front return panels —	SUS-HL
Kickplate —	Aluminum
Flooring —	PR803: Gray
Car operating panel —	CBV1-C760
Handrail ————	YH-59S







#### Car Design Example-3

Cailing (SOO)	— Same as Car Design Exampl
	— Painted steel sheet [Y117: Lime green]
Transom panel —	— Painted steel sheet [Y117: Lime green]
Doors —	— Painted steel sheet [Y117: Lime green]
Front return panels	— SUS-HL
Kickplate ———	— Aluminum
Flooring —	— PR803: Gray
Car operating panel	— CBV1-C760
Handrail —	— YH-59S

#### Car Design Example-4

Ceiling (S00)	- Same as Car Design Example-1
Walls —	- Painted steel sheet [Y119: Carrot orange]
Transom panel ——	Painted steel sheet [Y119: Carrot orange]
Doors —	Painted steel sheet [Y119: Carrot orange]
Front return panels -	- SUS-HL
Kickplate —	- Aluminum
Flooring —	- PR803: Gray
Car operating panel —	- CBV1-C760
Handrail —	- YH-59S

## Car Finish Application Table Please refer to pages 29 and 30 for materials and colors.

Materials/Finishes	Walls	Transom panel	Doors	Front return panels	Kickplate	Flooring	Sill
Stainless-steel, hairline-finish (SUS-HL)	Standard	Standard	Standard	Standard	Optional		
Pattern-printed steel sheet	Optional	Optional	Optional				
Painted steel sheet	Optional	Optional	Optional	Optional*3	Optional*4		
Stainless-steel, hairline-finish with etched pattern*1 (SUS-HE)	Optional	Optional	Optional	2 2			2
Colored stainless-steel, hairline-finish (colored SUS-HL)	Optional	Optional	Optional		Optional		8 =
Colored stainless-steel, hairline-finish with etched pattern*2 (colored SUS-HE)	Optional	Optional	Optional				
Stainless-steel, mirror-finish (SUS-M)	Optional	Optional	Optional	Optional			
Aluminum	₩	89	.54		Standard		
Glass windows [1300(H)×200(W)/1300(H)×300(W)]			Optional	9			
See-through doors			Optional	30	1	1	9
Durable vinyl tiles (2mm thick)						Standard	
Aluminum checkered plate (3t)						Optional	
Rubber tile/carpet/marble/granite (supplied by customer)						Optional	
Extruded hard aluminum	×	*	× 0	0			Standard
Stainless-steel		12		9			Optiona

- Note: \*1: Etching pattern EPA-1~6 only. \*2: Etching pattern EPA-1~3 only.
- \*3: Painted steel sheet may not be available for front return panel depending on the manufacturing factory, please consult our local agents for details. \*4: Only available in dark gray.

Actual colors may differ slightly from those shown.

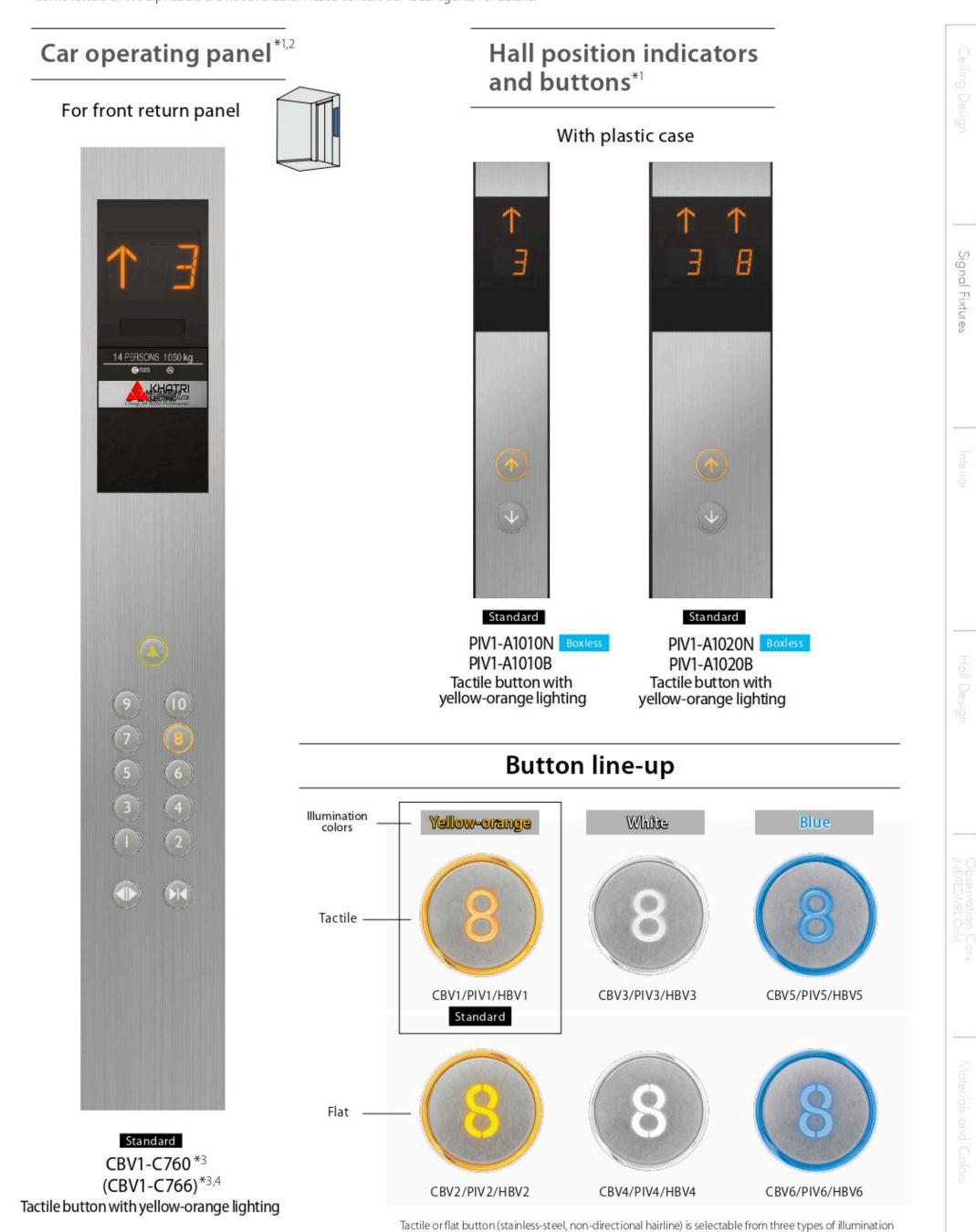






# Segment LED\* Indicators

\*Some letters of the alphabets are not available. Please consult our local agents for details.



colors (yellow-orange, white or blue).

- \*1: Dot LED indicators are also available (optional). Please consult our local agents for details.
  \*2: A faceplate with stainless-steel, mirror-finish is also available (optional). Please consult our local agents for details.
- \*3: Maximum number of floors: 22 floors.
- \*4: The type in parentheses () shows an auxiliary car operating panel (optional). The design is slightly different from the above image. Please consult our local agents for further information such as installation location.

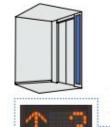
**O** INSTAGRAM



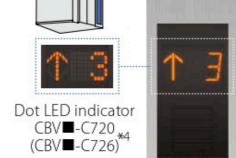
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#### Car operating panels\*1,2,3



For front return panel





For side wall



















Swing type CBV■-D710 (CBV■-D716)\*4

\*1: The symbol ■ is replaced with a number representing the button type and illumination color. (e.g. CBV1, CBV2, etc.) Please refer to page 16 for button line-up.

\*2: Dot LED indicators are also available (optional). Please consult our local agents for details.

\*3: Faceplates with stainless-steel, mirror-finish are also available (optional). Please consult our local agents for details.

\*4: The type in parentheses () shows an auxiliary car operating panel (optional). The design is slightly different from the above images.

Please consult our local agents for further information such as installation location.

\*5: The applicable button type is tactile buttons only. \*6: For single-car operation, these hall signal fixtures with tactile buttons conform to EN81-70.

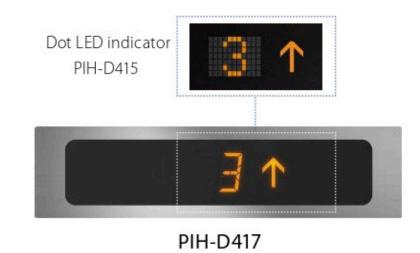
#### Hall position indicators and buttons \*1,2,3



PIV■-C710N\*6

PIV■-C720N

#### Hall position indicators \*2





PID-D417 (built into transom panel)

#### Hall position indicator with lantern\*2



www.

CBV**■**-C710

(CBV■-C716)\*4



# LCD Indicators

Car operating panels\*1,2

For front return panel -



Swing type (5.7-inch) CBV■-D730 (CBV■-D736)\*4



Swing type (10.4-inch) CBV**■**-D740

\*1: The symbol ■ is replaced with a number representing the button type and illumination color. (e.g. CBV1, CBV2, etc.)

Please refer to page 16 for button line-up. \*2: Faceplates with stainless-steel, mirror-finish are also available (optional). Please consult our local agents for details.

\*3: Maximum number of floors: 22 floors.

\*4: The type in parentheses () shows an auxiliary car operating panel (optional). The design is slightly different from the above images. Please consult our local agents for further information such as installation location.

\*5: The applicable button type is tactile buttons only.



For side wall –

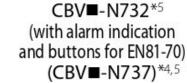


CBV**■**-N730 (CBV■-N736)\*4

Swing type (15-inch)

CBV■-D750





# LCD Indicators

#### Hall position indicators and buttons \*1,2





PIV■-C766N\*3

PIV■-C776N

#### LCD position indicator (for hall)



PIH-C117 (5.7-inch)

#### LCD information displays (for hall)



PIH-C216 (10.4-inch)



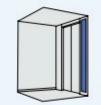
PIH-C226 (15-inch)

- \*1: The symbol is replaced with a number representing the button type and illumination color. (e.g. PIV1, PIV2, etc.) Please refer to page 16 for button line-up.
  \*2: Faceplates with stainless-steel, mirror-finish are also available (optional).
- Please consult our local agents for details.
- \*3: For single-car operation, this hall signal fixture with tactile buttons conform to EN81-70. \*4: The type in parentheses () shows auxiliary car operating panel (optional). The design is slightly different from the above images.
- Please consult our local agents for further information such as installation location. \*5: The symbol  $\square$  is replaced with an illumination color number as shown under the car operating panel images.



# NEXIEZ-MR, NexWay-S Only

#### Car operating panels



For front return panel













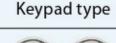
CBU□\*5-C710 (CBU□\*5-C716)\*4

CBVF-C258 Keypad type

Keypad type

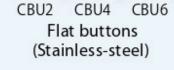
CBVF-N229S (with alarm indication and buttons for EN81-70) and buttons for EN81-70)

CBVF-N229L Keypad type





Number: Flat button Star: Tactile button (Stainless-steel matte)



Walter Blue

Star: Tactile button

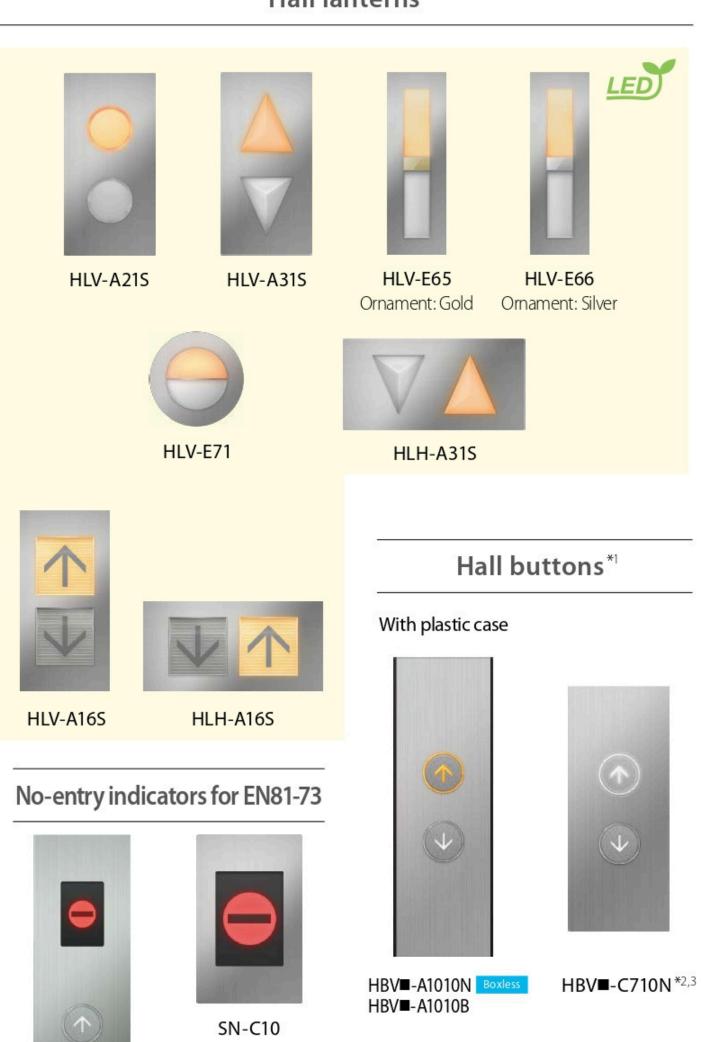
(Stainless-steel matte)

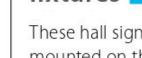




# Hall Signal Fixtures

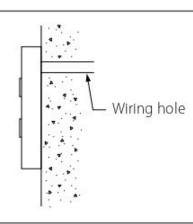
#### Hall lanterns





**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.



- \*1: The symbol is replaced with a number representing the button type and illumination color. (e.g. HBV1, HBV2, etc.)
  Please refer to page 16 for button line-up.
  \*2: A faceplate with stainless-steel, mirror finish is also available (optional). Please consult our local agents for details.
  \*3: These hall signal fixtures with tactile buttons are applicable to EN81-70 compliant elevators.

# Interior

#### Mirrors



#### Handrails









YH-59G(SUS-M)



YH-59M (SUS-M)

YH-57S (SUS-HL)

Actual colors may differ slightly from those shown. Please refer to page 14 for the meaning of SUS-HL and SUS-M.



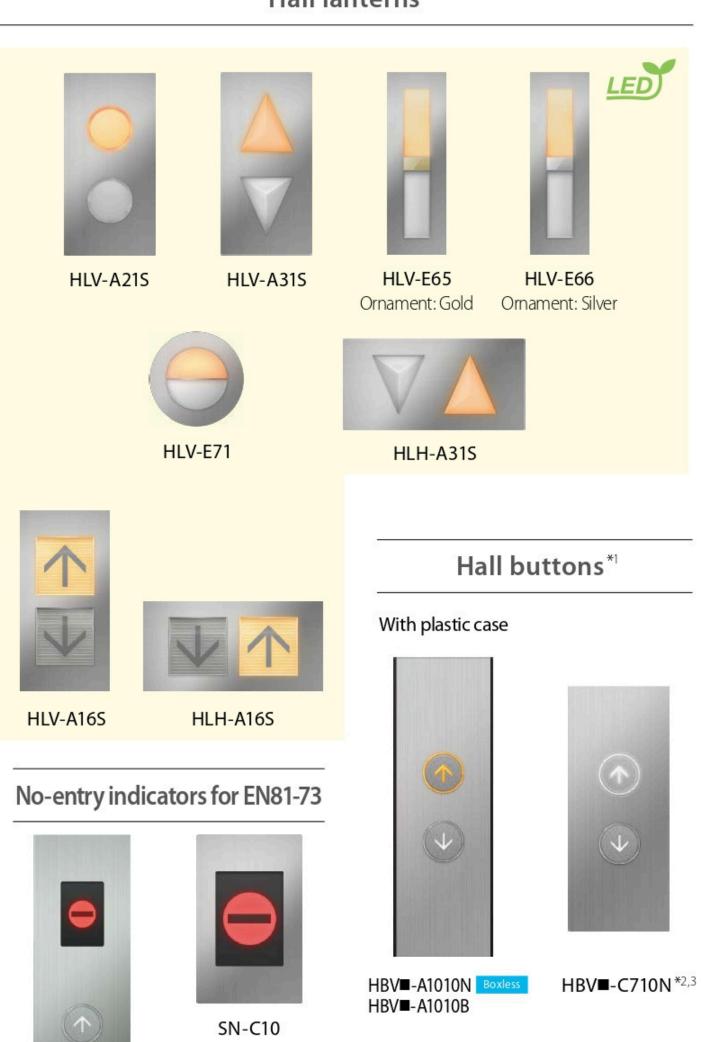
HBV■-C711N\*1,2,3

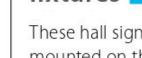
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# Hall Signal Fixtures

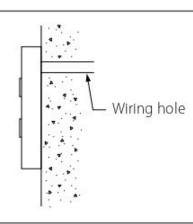
#### Hall lanterns





**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.



- \*1: The symbol is replaced with a number representing the button type and illumination color. (e.g. HBV1, HBV2, etc.)
  Please refer to page 16 for button line-up.
  \*2: A faceplate with stainless-steel, mirror finish is also available (optional). Please consult our local agents for details.
  \*3: These hall signal fixtures with tactile buttons are applicable to EN81-70 compliant elevators.

# Interior

#### Mirrors



#### Handrails









YH-59G(SUS-M)



YH-59M (SUS-M)

YH-57S (SUS-HL)

Actual colors may differ slightly from those shown. Please refer to page 14 for the meaning of SUS-HL and SUS-M.



HBV■-C711N\*1,2,3

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# GREETINGS FROM KHATRI ELEVATORS & ESCALATOR PRIVATE LIMITED.



Elevators and Escalators are indispensable parts of urban life that support smooth and effortless movement. Through daily research and development, we are committed to further improving your safety, quality and comfort.

# CONTACT US.

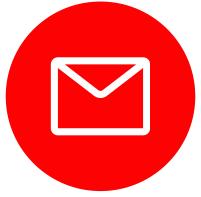




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