



TOSHIBA

TOSHIBA COMPACT MACHINE ROOM ELEVATORS
STANDARD PASSENGER ELEVATOR

ELCOSMO-III

For EN standard

3rd Edition

For EN standard

Safety Cautions

- Observance of relevant laws / regulations are required.
- Read the entire "Instruction Manual" carefully before use, for important information about safety, handling and operation.

TOSHIBA

Toshiba Elevator and Building Systems Corporation

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Please enter the contents from the "Inquiry Input Form" in website.
<https://www.toshiba-elevator.co.jp/elv/infoeng/>

· The data given in this catalog are subject to change without notice.

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THE SOLUTIONS

COMPANY SOLUTIONS

Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment, maintenance and services in order to provide clients with the highest quality products and services.

Utilizing the comprehensive technological infrastructure developed by Toshiba Group in more than 140 years since its foundation, we aim to enhance the leading edge technology and quality that we used to develop the ultra high speed elevator, harnessing Toshiba's technological innovations to their fullest extent. To meet clients' expectations and requirements for safe and pleasant elevators as well as constantly pursuing further innovation and improvement. Furthermore, we are aiming to strengthen system development, production, enhancing sales channel and sales partnership to expand in the global market.

CONCEPT of ELCOSMO-III

Toshiba manufactures elevators by applying the latest technology and improved elevator development skills. ELCOSMO-III, the most recent high-end compact machine room elevator, which incorporates various technologies to save energy and time, contributes to global environment.

Product Line-up

Expanded the applicable speed of the ELCOSMO-III. We can comply with various needs such as building use, layout design, etc.

Scope of specification	Range of application
Passenger	8 ~ 26 persons
Rated load	630 ~ 2000 kg
Rated speed	1.0 ~ 4.0 m/s*1

Note1: Applicable range of rated speed 3.5 or 4.0m/s are rated load 900 or 1000kg only.
 Note2: The above table complies with EN81-20/50 standards.

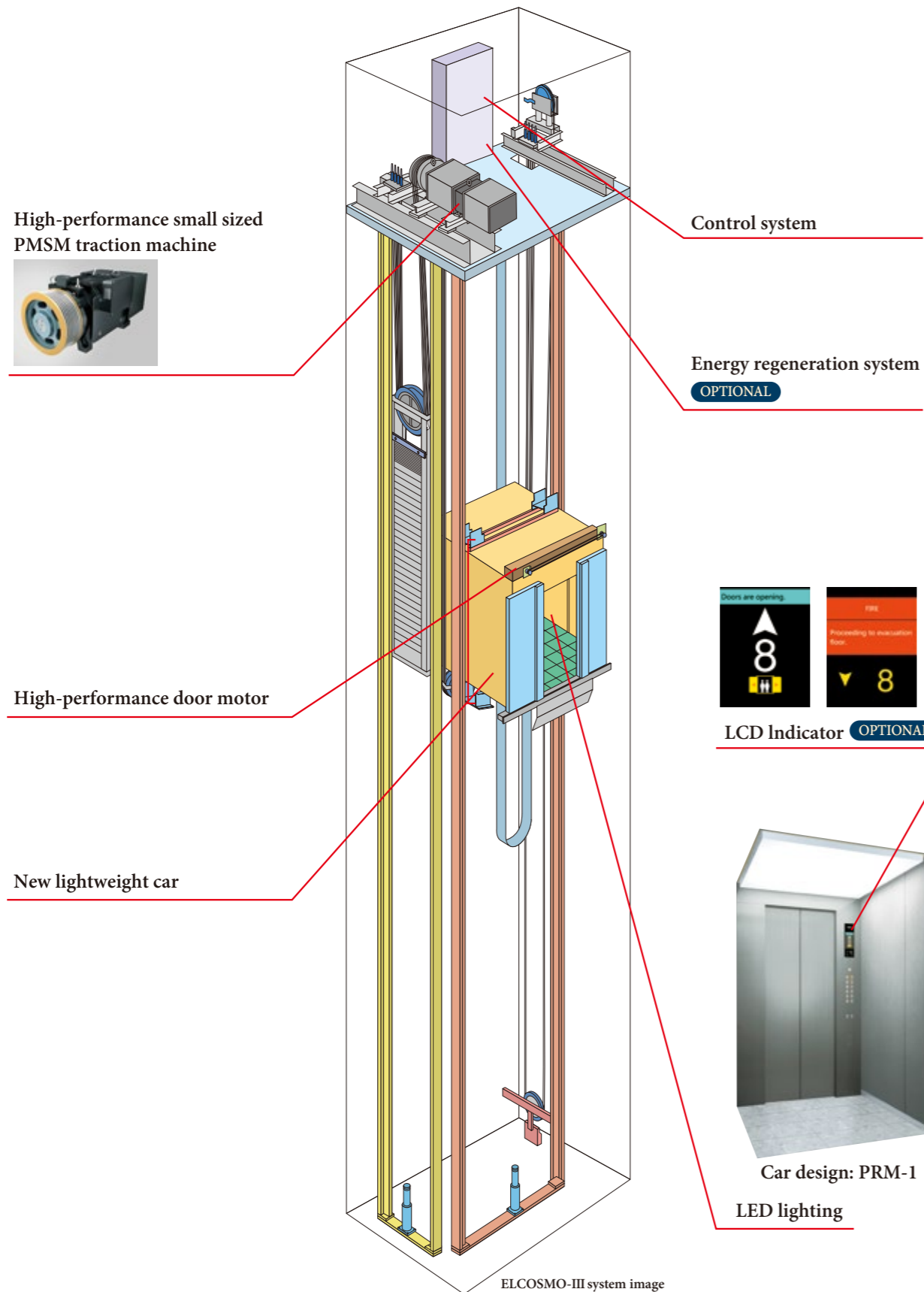
Rated speed (m/s)	Rated load (kg)										
	630	825	900	1000	1050	1150	1275	1350	1600	1800	2000
4.0											
3.5											
3.0											
2.5											
2.0											
1.75											
1.5/1.6											
1.0											
Type	P8	P11	P12	P13	P14	P15	P17	P18	P21	P24	P26



Contents

- The Solutions
 - Company Solutions P.1
 - Concept of ELCOSMO-III P.2
- Technology
 - Technology P.3
 - Safety Function P.5
 - Energy Saving & Environment P.9
- Expansion of variations in car ceiling design P.13
- Car Design
 - OFFICE P.15
 - RESIDENCE P.17
 - HOTEL P.19
 - SHOP P.21
- Hall Design
 - Hall Decoration Item Variation P.23
- Operation Systems P.31
- Functions P.49
- Hoistway Layout/ Specifications P.51
- Works by Others P.61
- Global Network P.63

TECHNOLOGY



The actual product colors may vary slightly from those printed colors in this catalog.

New Technology

High-performance Small Sized PMSM Traction Machine

- ◆ Compact PMSM (Permanent Magnet Synchronous Motor) for space saving.
- ◆ Over 30% less power consumption (compared to conventional electric motor).
- ◆ Gearless traction without gear oil for low vibration, low noise and better environmental conservation.

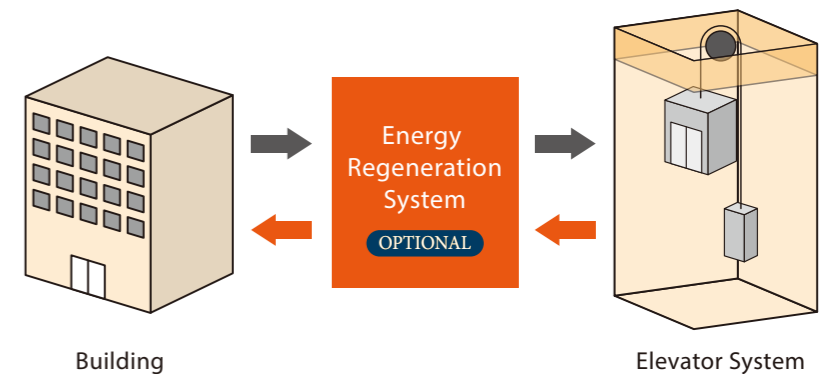


High Performance Control Systems

A high performance CPU is adopted for control systems. This control system enables to reduce standby electricity, automatic shutoff system for lightings and ventilation to contribute furthermore reduction of electricity.

Energy Regeneration System OPTIONAL

An energy regeneration device feeds energy back to the power grid while the traction machine is under power generation to achieve high-efficiency energy utilization, which results in over 38% energy conservation (with the assumption of 1050kg, 1.75m/s, 12-hour operation per day, 25 days per month).



Use of Roller Guide OPTIONAL

- A roller guide is used instead of a conventional sliding guide shoe. Features include:
- ◆ Comfort: Using the successful vibration damping solution from the high-end elevator type, riding comfort is further improved after roller guide is mounted on the car.
 - ◆ High efficiency: Visible improvement of the mechanical efficiency with lower friction and energy consumption.
 - ◆ Environmental conservation: Lubrication oil and lubrication unit are eliminated and replaced by a long-life rubber roller to reduce environmental pollution.



* This optional system may not be suitable for certain buildings. Please contact us for more information.

TECHNOLOGY



Safety Function

Unintended Car Movement Protection

A traction drive elevator shall include means to prevent uncontrolled movement of the elevator away from the landing with neither the landing nor the car doors in the locked position. The Elevator shall detect uncontrolled movement of the car away from the landing and stop no more than 1200mm after as measured from the landing floor sill. Before operation, the uncontrolled car movement protection system means for an ascending elevator, the clearance between the landing door floor sill and the apron of the stopped elevator shall not exceed 200mm. In additional, uncontrolled movement protection means the horizontal distance between the sill or entrance frame of the stopped elevator and the wall of the well, from the landing floor sill to 1200mm downward for a descending elevator.

Car Door Lock **OPTIONAL**

Every car door shall be mechanically locked by at least 7mm such that it can only be opened in the unlocking zone of a landing. The lift operation shall automechanically depend on the locking of the car door. This locking shall be proved by an electrical safety device to confirm the horizontal distance between the well wall and the sill or entrance frame of the car is within 150mm.

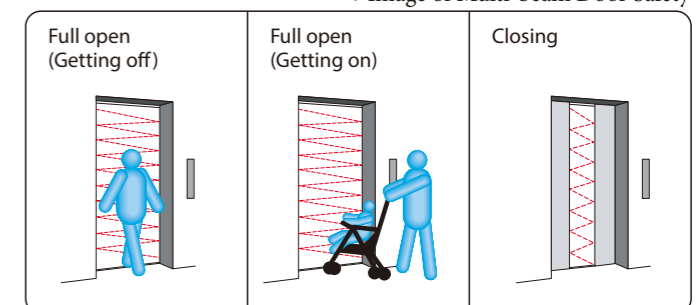
Ascending Car Overspeed Protection

A device to prevent an elevator ascending to the elevator shaft top beyond the rated speed due to a device like an electromagnetic brake or control unit. It monitors the speed of the upper direction mechanically by a governor, then cut off the power supply and safety circuit by an overspeed detecting switch when the speed exceeds the rated speed more than 1.3 times. The elevator shall be stopped by triggering the double brake when overspeed occurred.

2-in-1 door safety

(multi-beam door safety + mechanical door safety)
A combination of multi-beam door safety and mechanical door safety.

* Image of Multi-beam Door Safety



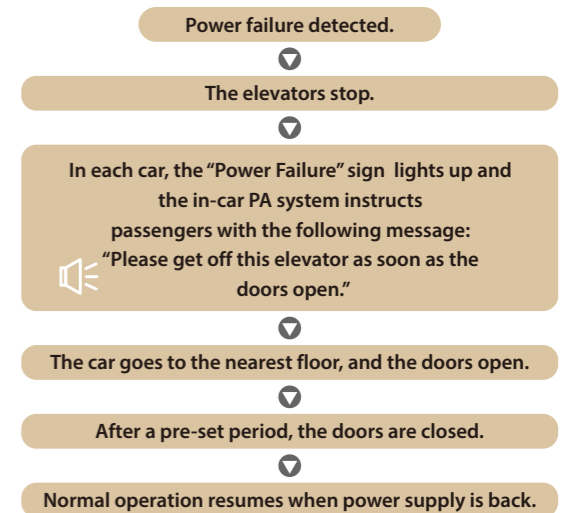
TECHNOLOGY

Safety Function

Automatic Landing in Power Failure

OPTIONAL

In case of a power failure, backup lamps are automatically lighted up in the cars, while the system's operation is switched to the elevator system's own battery powered inverter. Cars stranded between floors are taken to the nearest floor; otherwise, doors are opened and passengers are let out. The doors automatically open in case the car stops at any point that is not between floors but where the doors can be opened. (Note: Overridden by any similar backup or safety systems installed in compliance with safety codes.)



※Above flowchart is representable example

Earthquake Emergency Operation

OPTIONAL

When the system's seismic sensor installed in the elevator shaft detects an S-wave (the secondary seismic wave and the main shock of an earthquake) that exceeds the pre-set threshold, the system takes control with emergency procedures. "Earthquake" emergency signs lighted up in all cars, all cars are taken immediately to the nearest floor, doors are opened and passengers are instructed to alight.

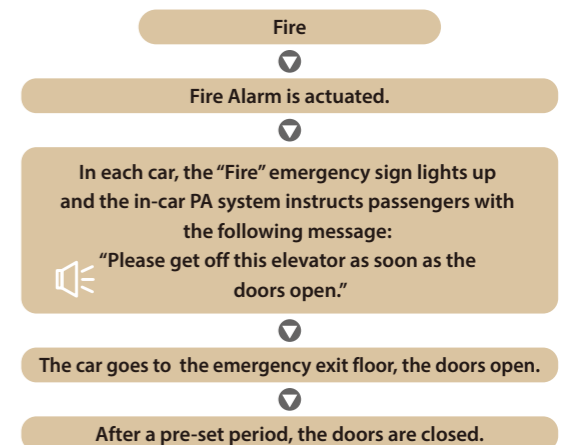


※Above flowchart is representable example

Fire Emergency Operation

OPTIONAL

This emergency operation is automatically triggered in case of a fire, when a fire alarm button is actuated, or when a Fire/Smoke Detector detects an abnormality. All hall calls and floor selections are cancelled, passengers are informed of the emergency procedure with a "Fire" sign and a voice announcement and all cars are sent directly to the emergency exit floor. Doors open at the emergency floor and passengers are guided to safety.



※Above flowchart is representable example

TECHNOLOGY

Energy Saving & Environment

Toshiba Group and the SDGs

The main plank of the "Toshiba Group Basic Commitment" is "Committed to people, Committed to the Future.". This expresses Toshiba Elevator and Building Systems is unwavering determination to contribute to the development of society through its business, and is consistent with the direction of the SDGs, which aim to realize a sustainable society. Acting in good faith in our daily activities, and with a passion to make the world a better place, looking to the future beyond the next generation, and to create that future with our stakeholders-inspired by these ideas, Toshiba Elevator and Building Systems has and will continue to bring together the creativity and technological capabilities it has cultivated to confront social issues that are becoming more complicated and serious, and to turn on the promise of a new day.

Note: Toshiba Elevator and Building Systems is working on business activities by extracting 11 items that can be promoted from all 17 types of SDGs goals.

SUSTAINABLE DEVELOPMENT GOALS



Products and functions adopted to reduce power consumption

Suppress power consumption by reducing standby power, commercialization of the regenerative power function, adoption of LED lighting.

LED Lightings

Under equal brightness, an LED lighting system only consumes 10% of electrical with comparison of an incandescent lamp and 50% of an fluorescent lamp. (part of the ceiling)



PRM-1

TECHNOLOGY



Energy Saving & Environment

Providing environmentally conscious products

Toshiba elevator group is promoting the development of environmentally conscious products, which involves environmentally conscious product design, assessing the environmental impact of products and disclosing the environmental performance of products. Products are developed in compliance with the updated voluntary environmental performance standards.

Product assessment and voluntary environmental standards for products

In developing products, we assess them across their life cycles from manufacturing, logistics and use to disposal and recycling to conduct product development and reduce the environmental impacts on the global environment.

Whereas product assessment is used to confirm the minimum necessary environmentally conscious requirements for product development, Voluntary Environmental Standards for Products have been established in the Toshiba elevator group to create highly environmentally friendly products and products complying with the same are released as environmentally conscious products.

Reducing hazardous materials

[Reduction of lead use]

By changing the method of tying rope, the use of lead can be eliminated or reduced.

[Employing LED lightings]

By employing LED light, various materials used for light became mercury free.

Lead-free Design of Base Plate, RoHS Compliance and Elimination of Specific Chemical Substances (15 Classifications)

Continuous concern over RoHS compliance, eliminating 15 classifications of specific chemical substances and using the lead-free technique for main circuit boards.



Expansion of variations in car ceiling design

Suitable for harmonization of a wide variety for building applications and concepts.
 Expanding the lineup of ceiling designs utilizing LED lighting
 All ceiling lighting uses LED lighting to take environmental measures such as long life and energy saving.

STANDARD



SL-P1 LED
【Note1】



SL-1 LED

LED : LED light

【Note1】 Applies to models with a capacity of 1600kg or less.

【Note2】 Applies to models with a capacity of 1050kg or less.

OPTIONAL



DLX-31 LED



DLX-28 LED
【Note2】



DLX-27 LED
【Note2】



DLX-25 LED
【Note2】



DLX-24 LED



DLX-23 LED



DLX-22 LED



DLX-21 LED



PRM-1 LED



PRM-2 LED
【Note1】



TL-1 LED



TL-S2 LED
【Note2】



TL-S1 LED
【Note2】



DLC-1 LED
【Note2】



SL-3X LED
【Note2】



SL-V1 LED
【Note2】

The actual product colors may vary slightly from those printed colors in this catalog.
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Car Design

OFFICE

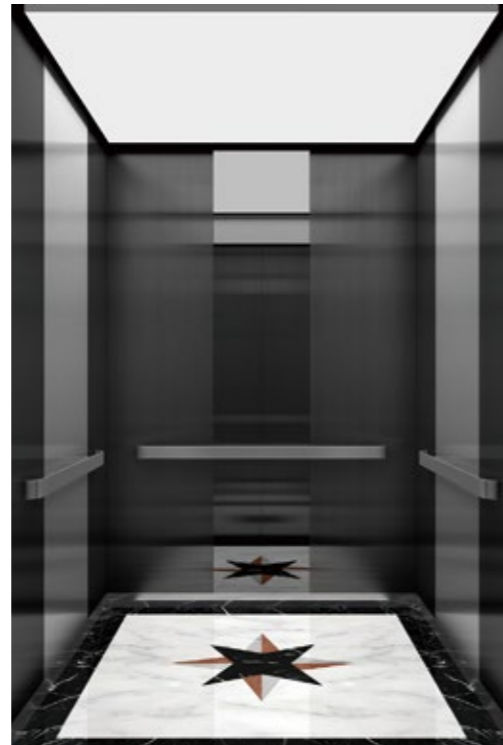
OPTIONAL

PRM-1

Front side view



Back side view



Ceiling design	PRM-1
Car side panel (Return panel)	Vibration finish stainless steel
Car side panel (Side panel)	Black color hairline finish stainless steel and Vibration finish stainless steel
Car side panel (Rear panel)	Black color hairline finish stainless steel and Mirror finish stainless steel
Kick plate	Hairline finish stainless steel
Car door	Black color hairline finish stainless steel
Car floor	Marble tile (JQ-1013)
COP	POP-G1L-104C
Indicator	10.4inch Color LCD
Handrail	Stainless steel flat type hand rail
Remark	Applies to models with a capacity of 1150kg or more.

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Design variations

The publication of this page is an example of design. Please refer to the "DESIGN SELECTION" catalog for each the condition and other designs.

OPTIONAL

PRM-2



OPTIONAL

DLX-31



OPTIONAL

DLX-27



OPTIONAL

SL-3X



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Car Design

RESIDENCE

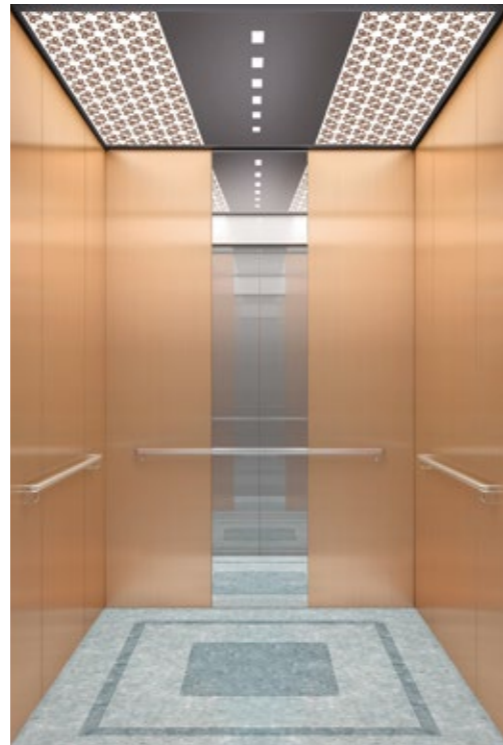
OPTIONAL

DLX-24

Front side view



Back side view



Ceiling design	DLX-24 with pattern C
Car side panel (Return panel)	Vibration finish stainless steel
Car side panel (Side panel)	Rose gold color hairline finish stainless steel
Car side panel (Rear panel)	Rose gold color hairline finish stainless steel and Mirror finish stainless steel
Kick plate	Nil
Car door	Mirror finish stainless steel
Car floor	Vinyl tile (TSF-1C)
COP	COP-G1L-57B
Indicator	5.7 inch Color LCD
Handrail	Stainless steel round type hand rail

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Design variations

The publication of this page is an example of design. Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

OPTIONAL
DLX-23



OPTIONAL
TL-1



OPTIONAL
DLX-21



OPTIONAL
TL-S2



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Car Design



OPTIONAL

DLX-31

Front side view



Back side view



Ceiling design	DLX-31
Car side panel (Return panel)	Black color hairline finish stainless steel
Car side panel (Side panel)	Black color hairline finish stainless steel and Mirror etching finish stainless steel
Car side panel (Rear panel)	Black color hairline finish stainless steel and Mirror etching finish stainless steel
Kick plate	Nil
Car door	Mirror etching finish stainless steel
Car floor	Marble (JQ-1012)
COP	POP-G1L-57B
Indicator	5.7 inch Color LCD
Handrail	Nil

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Design variations

The publication of this page is an example of design. Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

OPTIONAL

DLX-24



OPTIONAL

DLX-25



OPTIONAL

PRM-2



STANDARD

SL-1



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Car Design



OPTIONAL

DLX-22

Front side view



Back side view



Ceiling design	DLX-22
Car side panel (Return panel)	Vibration finish stainless steel
Car side panel (Side panel)	Vibration finish stainless steel and Mirror finish stainless steel
Car side panel (Rear panel)	Vibration finish stainless steel and Mirror finish stainless steel
Kick plate	Nil
Car door	Mirror finish stainless steel
Car floor	Marble (JQ-1013)
COP	POP-G1L-57B
Indicator	5.7 inch Color LCD
Handrail	Nil

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Design variations

The publication of this page is an example of design. Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

OPTIONAL
DLX-21



OPTIONAL
DLX-28



OPTIONAL
DLX-23



OPTIONAL
DLC-1



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Hall Design

Hall Decoration Item Variation

The combination of elevator hall equipment and specifications extends design. It can be easily harmonized with the entrance design of the building.



Hall design 2
OPTIONAL



Hall design 3
OPTIONAL



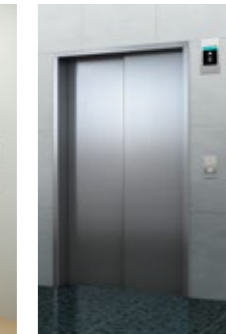
Hall design 4
OPTIONAL



Hall design 5
OPTIONAL



Hall design 6
STANDARD



Hall design 7
OPTIONAL

Hall design 1 OPTIONAL

Hall jamb	Wide type jamb with transom Hairline finish stainless steel
Hall door	Hairline finish stainless steel
Hall transom	Hairline finish stainless steel
Hall sill	Hardened aluminium
Hall indicator	Nil
Hall button	HB-G1K
Hall lantern	HL-G1-O



HB-G1K



HL-G1-O



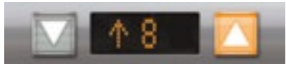
Note : In the case of jamb with transom, fire-proof specification cannot be applied to the transom.

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Hall Design

Hall design 2 OPTIONAL

- Hall jamb** Wide type jamb
Painted steel panel (1NS)
- Hall door** Painted steel panel (1NS)
- Hall transam** Nil
- Hall sill** Hardened aluminium
- Hall indicator** HI-G34-O
- Hall button** HB-G1K
- Hall lantern** Nil



HI-G34-O



HB-G1K



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Hall design 3 OPTIONAL

- Hall jamb** Wide type jamb
Painted steel panel (3NS)
- Hall door** Painted steel panel (3NS)
- Hall transam** Nil
- Hall sill** Hardened aluminium
- Hall indicator** Nil
- Hall button** HIB-G1NL
- Hall lantern** HL-G1-O



HIB-G1NL



HL-G1-O



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Hall Design

Hall design 4 OPTIONAL

- Hall jamb** Wide type jamb
Hairline finish stainless steel
- Hall door** Painted steel panel (62YS)
- Hall transam** Nil
- Hall sill** Hardened aluminium
- Hall indicator /
Hall button** HIB-G1L-43B
- Hall lantern** Nil

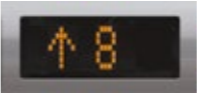


HIB-G1L-43B



Hall design 5 OPTIONAL

- Hall jamb** Wide type jamb
Painted steel panel (114PBS)
- Hall door** Painted steel panel (114PBS)
- Hall transam** Nil
- Hall sill** Hardened aluminium
- Hall indicator** HI-G1-O
- Hall button** HB-G1K
- Hall lantern** Nil



HI-G1-O



HB-G1K



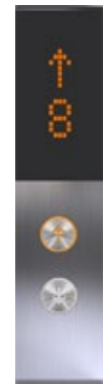
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Hall Design

Hall design 6 STANDARD

Hall jamb	Narrow type jamb Painted steel panel (77GS)
Hall door	Painted steel panel (77GS)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator / Hall button	HIB-G1N
Hall lantern	Nil



HIB-G1N



Hall design 7 OPTIONAL

Hall jamb	Wide type jamb Hairline finish stainless steel
Hall door	Hairline finish stainless steel
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator	HI-G1L-57B
Hall button	HB-G1K
Hall lantern	Nil



HI-G1L-57B



HB-G1K



OPERATION SYSTEMS

TOSHIBA

Doors are opening.

↑

8

♿

FOR PASSENGER
14 PERSONS
1050 kg



11 12

9 10

7 8

5 6

Operation Systems

Car Operation Panel: POP type

※Note: Applicable to Wide Car type models

Car Operation Panel



POP-G1L-104C
OPTIONAL

Indicator



10.4 inch Color LCD

Button



KB-3 (Orange light)

PRM-1



Car Operation Panel



POP-G1L-84C
OPTIONAL



POP-G1L-57B
OPTIONAL



POP-G1L-70S
OPTIONAL



POP-G1L
OPTIONAL

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Operation Systems

Car Operation Panel: POP type

※Note: Applicable to Wide Car type models

Car Operation Panel



DLX-31



POP-G1NS
OPTIONAL

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Car Operation Panel



SL-P1



POP-G1NL
STANDARD

The actual product colors may vary slightly from those printed colors in this catalog.

Operation Systems

Car Operation Panel: FCOP type

※Note: Applicable to Deep Car type models

Car Operation Panel



FCOP-G1L-84C
(8.4 inch LCD)
OPTIONAL



8.4 inch Color LCD



KB-7 (Orange light)

DLX-21



The actual product colors may vary slightly from those printed colors in this catalog.

Car Operation Panel



FCOP-G1L-104C
OPTIONAL



FCOP-G1L-57B
OPTIONAL



FCOP-G1L-70S
OPTIONAL



FCOP-G1L
OPTIONAL

The actual product colors may vary slightly from those printed colors in this catalog.

Operation Systems

Car Operation Panel: FCOP type

※Note: Applicable to Deep Car type models

Car Operation Panel



FCOP-G1NS
OPTIONAL



TL-S2



The actual product colors may vary slightly from those printed colors in this catalog.

Car Operation Panel



FCOP-G1NL
STANDARD



DLX-23



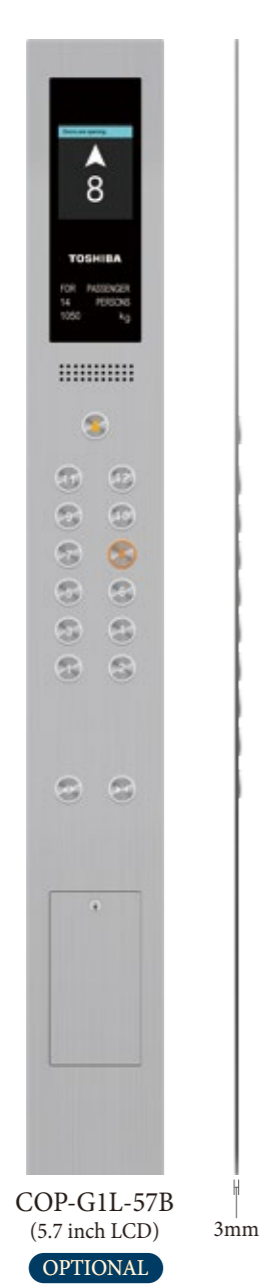
The actual product colors may vary slightly from those printed colors in this catalog.

Operation Systems

Car Operation Panel: COP type

※Note: Applicable to all models

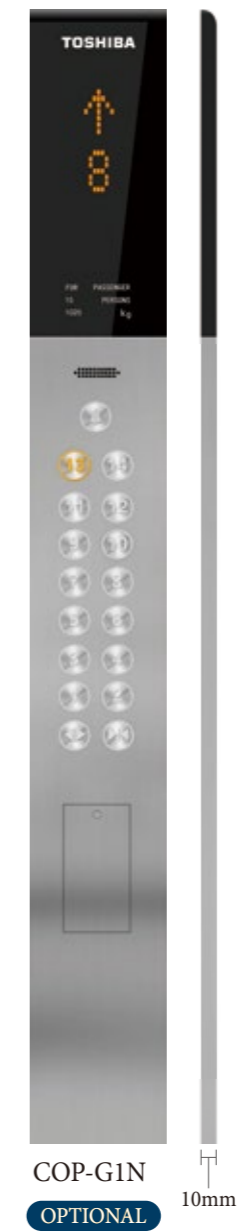
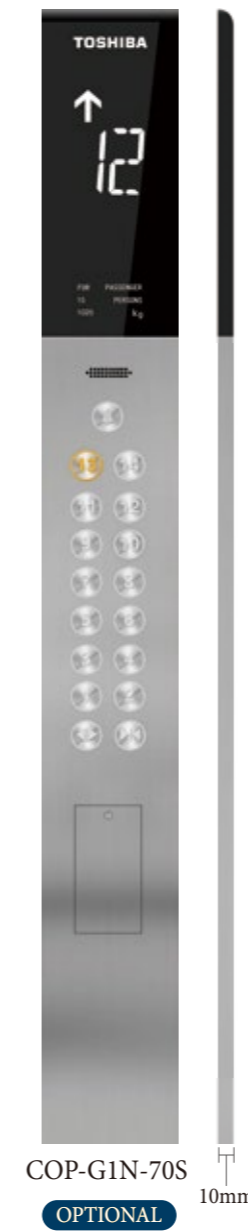
Car Operation Panel



SL-1



Car Operation Panel



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Operation Systems

Hall Indicator Button: HIB type

Hall Indicator Button



Hall Indicator Display

4.3inch Color LCD



LCD Segment



LED Segment



LED Dot Matrix

※Note: A white color or orange color can also be selected for the LED light.

Orange light



White light

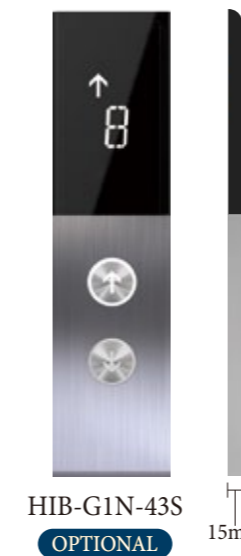


Detail of display



Hall Indicator Button

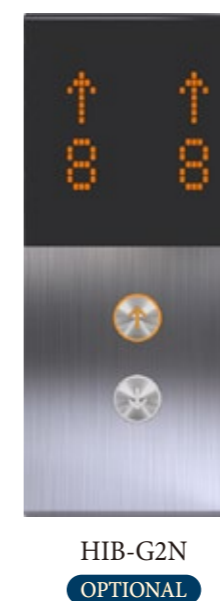
LCD Segment



LED Segment



LED Dot Matrix



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Operation Systems

Hall Indicator

Hall Indicator **OPTIONAL**



HI-G1-O



HI-G34-O



LED Dot matrix

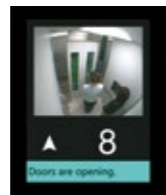
LCD Hall Indicator **OPTIONAL**

5.7 inch Color LCD

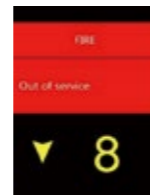


HI-G1L-57B

With monitoring



Controlled status



Hall Lantern

Hall Lantern **OPTIONAL**

*Note: A white light or orange light can also be selected for the lantern light.



HL-G1-O
(Orange light)



HL-G2-W
(White light)



HL-G3-O
(Orange light)



HL-G4-O
(Orange light)

Hall Button **OPTIONAL**



HB-G1
with parking SW

15mm



HB-G1K

3mm

Operation Systems

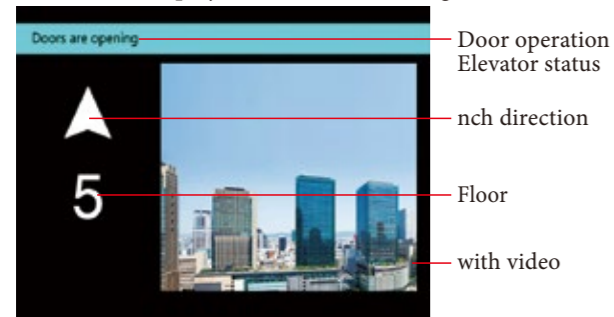
Car Position Indicator

Large LCD Indicator for Car Operation Panel OPTIONAL

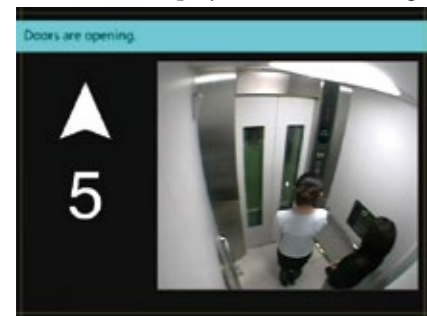
These 10.4 inch and 8.4 inch LCD indicators are capable of displaying in the elevator's various conditions (emergency operations, maintenance status) in large icons and letter in highly visible colors.

10.4 inch Color LCD

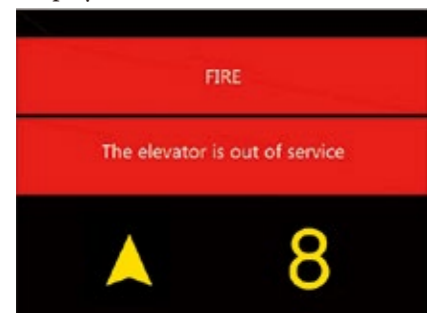
General car display (Without monitoring)



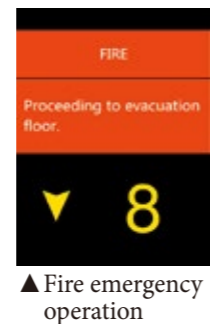
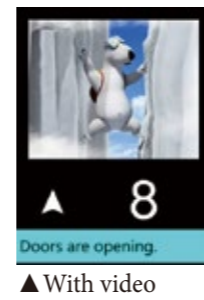
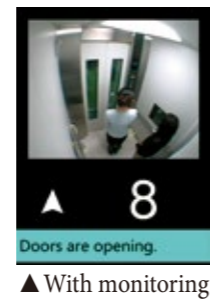
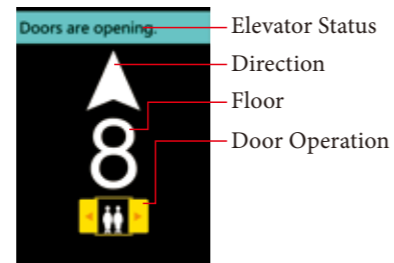
General car display (With monitoring)



Display under controlled status



8.4 inch Color LCD



5.7 inch Color LCD

General car display



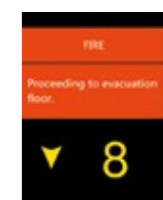
With monitoring



With video



Controlled status



LCD Segment



LED Segment



LED Dot matrix



The actual product colors may vary slightly from those printed colors in this catalog.

The actual product colors may vary slightly from those printed colors in this catalog.

Functions

○ : STANDARD △ : OPTIONAL

Functions	Notes	Descriptions	
Operations	Simplex selective-collective fully automatic operation	Fully automatic operation by hall and car calls for single car	○
	Duplex selective collective fully automatic operation (Note 1)	Fully automatic operation for 2 cars in the same group	△
	3 or 4-car group supervisory control system (Note 1)	Fully automatic operation for 3 or 4 cars in the same group	△
	Group supervisory control system	For supervisory operation of groups of more than 4 cars, please contact us	△
	FLOORNAVI	Destination Control System	△
	Independent operation	Lift car separated from group control operation and responde to car call only	△
	Attendant operation	Operation by attendant by switch & button provided at service cabinet in COP	△
Safety Functions	Automatic landing function when system fails	When system failure occurs, the lift will automatically land at the nearest floor and the door will open for passengers to exit	○
	Automatic withdrawn from group control	If an elevator under a group supervisory operation fails to run for some reason, the elevator is cut out of the group and the other elevators automatically back up the faulty one to continue the group supervisory operation.	○
	Car inspection operation [INS]	During car inspection operation, the lift car will run at slowly speed without responding to hall call	○
	Overload protection	The car overload buzzer will sound to prevent overloading and the doors will remain open	○
	Fireman's operation (Note 2)	In the event of fire, when the Fireman's switch is activated, the designated lift will be ready for firemen to use	△
	Fire emergency operation	In the event of fire, all lifts will return to the designated floor and stop operation to allow passengers to exit	△
	Emergency operation indication at COP	In the event of an emergency, the emergency operation status will be displayed at COP	○
	Power failure emergency operation	In the event of power failure, all lifts will return to the designated floor by emergency power supply from the building to allow passengers to exit	△
	Automatic landing during power failure [TOSLANDER]	In the event of power failure, the lift will land at the nearest floor by emergency battery	△
	Earthquake emergency operation	In the event of an earthquake, the elevator will detect the seismic signal and land at the nearest floor	△
	In-car emergency lamp [Self-charging]	In the event of power failure, the in-car emergency lamp will be activated	○
	Emergency call button	A button for passenger to make an emergency call when they are trapped inside the lift	○
	Door open when lift car is overloaded	The doors will re-open when over load is detected, even during the closing of doors.	○
	2 in 1 door safety [Multi-beam door safety + Mechanical door safety]	A combination of multi-beam door safety and mechanical door safety	○
	Service Functions	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by
Service floor cut-off selection [Software interface]		This is of the free setting type, where the elevator superintendent for every building is free to set and modify service cut-off floors even after in use. This is the most appropriate type for such office buildings as their tenants are not yet fixed before completion.	△

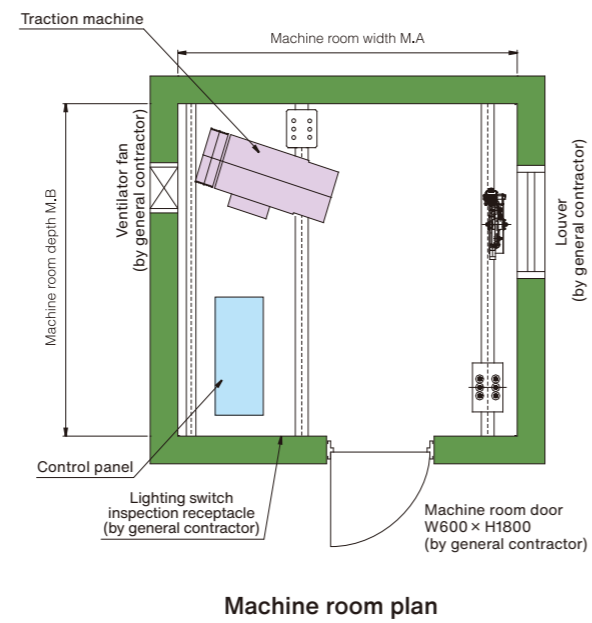
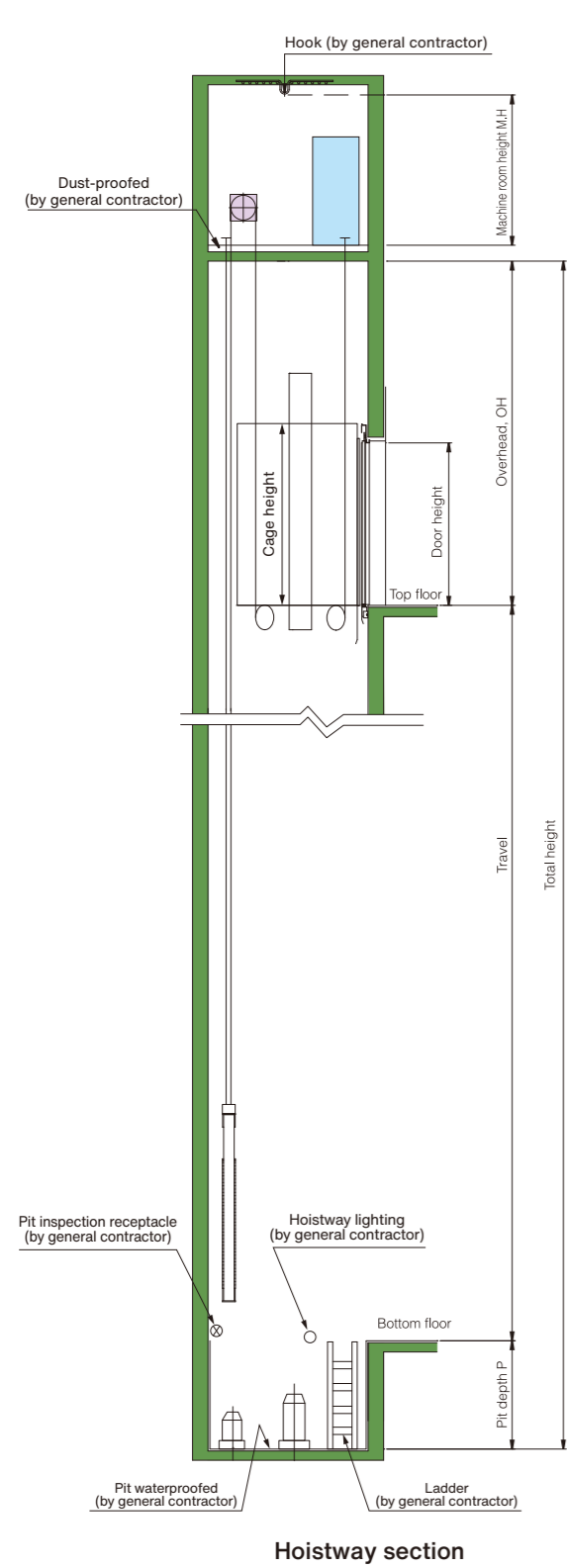
Notes

- 1: Not applicable to lift car with through door.
- 2: Fire emergency operation and fireman service cannot be applied simultaneously.
- 3: Standard function for 2-car operation or 3-car operation.
- 4: Car load is less than 150kg and there are five or more registered car calls.

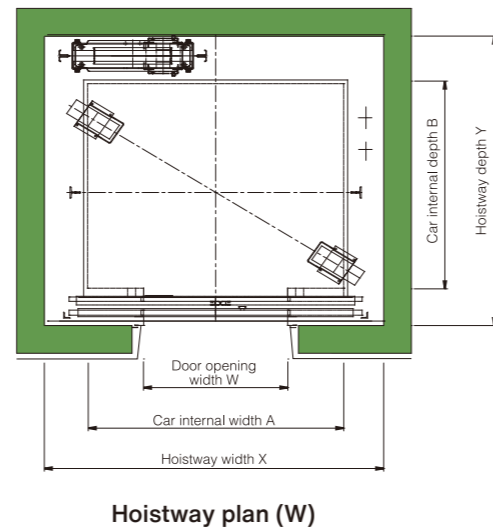
○ : STANDARD △ : OPTIONAL

Functions	Notes	Descriptions	
Service Functions	Service floor cut-off selection [Manual]	installing a switch or a timer on the supervisory panel, disables registration of car calls or hall calls for a basement floor's or an intermediate floors or intermediate floors thus engaging in non-stop (bypass) without servicing there.	△
	Full car bypass (Note 3)	When the lift car is full, the lift will bypass all hall calls and go straight to the designated floor	○
	Car call cancellation	The floor call can be cancelled from the COP by pressing the floor button twice within 3 second	○
	Nuisance call cancellation (Note 4)	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation	○
	Door repeated opening	When an obstacle is detected, the door will repeatedly open and close until the obstacle is removed	○
	Car indicator	Car indicator with the car operating panel	○
	Adjustable door opening time	Adjusts the door opening time to reflect building usage	○
	Door open extension button	Extends the door opening time	△
	Car chime	A chime installed in the car ceiling will sound when the lift arrives	△
	Hall chime	A chime installed in the lift lobby will sound when the lift arrives	△
	Car full load indicator	"Full Load" will display on the hall indicator when the lift car is full	○
	Hall lantern	The hall lantern will light up when the lift arrived	△
	Sub car operating panel	Additional car operating panel	△
	Out of service indicator	"Out of Service" will display on the hall indicator when the lift car is faulty	○
	Parking operation [Manual]	Parks the lift at designated floor by key-switch	○
	Parking operation [Automatic]	Parks the lift at designated floor autotmatically	△
	Car lighting automatic cut-off	When the lift is not in operation after a pre-determined period of time, the car light will turn off automatically	○
	Ventilation fan automatic cut-off	When the lift is not in operation after a pre-determined period of time, the ventilation fan will turn off automatically	○
	Door Open button lamp [For automatically cut-off car lighting]	The "Door Open" button will remain lit when the lift car light is turned off automatically	○
	Nuisance call cancellation at reversal	Cancel intentionally registered nuisance calls automatically in the reversal travel direction	○
	Multi-channel intercom	The intercom system can communicate with multi-stations simultaneously	○
	Designated floor stop operation	Automatically stops the lift at the designated floor for crime prevention purposes	△
	Card access system	Allows activation of the disnated floor call by IC card ※ Card Access System by others	△
	Speech synthesizer	Announces car operations	△
Supervisory panel	Located in the building control room, etc. to monitor the status and control of each lift	△	

Hoistway Layout



Machine room plan



Hoistway plan (W)

Specifications

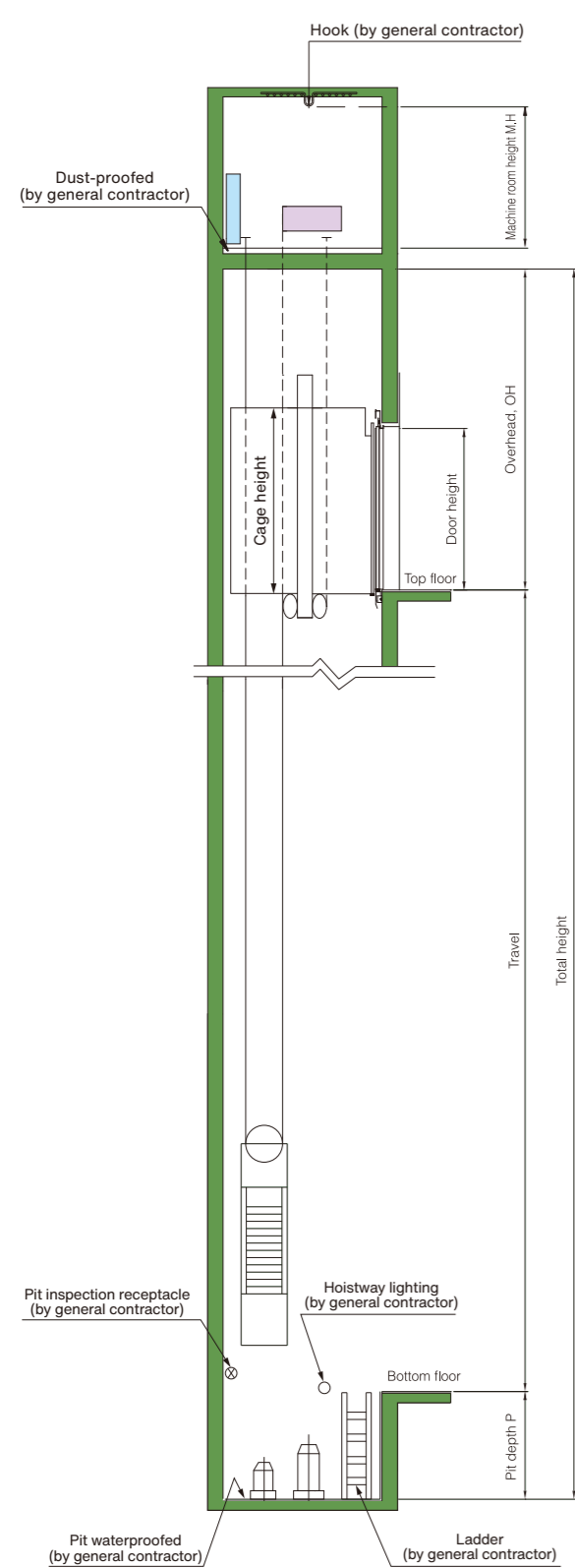
Type	Nos. of Person	Capacity (kg)	Speed (m/s)	Cage size Internal (mm)		Door entrance (mm)		C/W	Hoistway size (mm)			Machine room dimensions (mm)		Motor Capacity (kW)	Max. Service Stops (s)	Max. Travel (m)		
				A×B	Height	Width	Height		X×Y	OH	P	MA×MB	MH					
P8-CO60	W	8	630	1	1400×1100	2300	800	2100	Rear	2000×1720	3700	1450	2000×1720	2100	3.6	40	90	
	900						2200×1720			2200×1720								
P8-CO96	W						1.6			800			2000×1720					2000×1720
	900						2200×1720			2200×1720								
P8-CO105	W						1.75			800			2000×1720					2000×1720
	900						2200×1720			2200×1720								
P8-CO120	W	2	800	2000×1720	2000×1720													
	900	2200×1720	2200×1720															
P11-CO60	W	11	825	1	1400×1350	2300	800	2100	Rear	2000×1970	3700	1450	2000×1970	2100	4.7	40	90	
	900						2200×1970			2200×1970								
P11-CO96	W						1.6			800			2000×1970					2000×1970
	900						2200×1970			2200×1970								
P11-CO105	W						1.75			800			2000×1970					2000×1970
	900						2200×1970			2200×1970								
P11-CO120	W	2	800	2000×1970	2000×1970													
	900	2200×1970	2200×1970															
P11-CO150	W	2.5	800	2000×1970	2000×1970													
	900	2200×1970	2200×1970															
P13-CO60	W	13	1000	1	1600×1400	2300	900	2100	Rear	2200×2020	3700	1450	2400×2020	2100	5.7	40	90	
	1000						2400×2020			2600×2020								
	1100						2600×2020			2600×2020								
P13-CO96	W						1.6			900			2200×2020					2200×2020
	1000						2400×2020			2400×2020								
	1100						2600×2020			2600×2020								
P13-CO105	W	1.75	900	2200×2020	2200×2020													
	1000	2400×2020	2400×2020															
	1100	2600×2020	2600×2020															
P13-CO120	W	2	900	2200×2020	2200×2020													
	1000	2400×2020	2400×2020															
	1100	2600×2020	2600×2020															
P13-CO150	W	2.5	900	2200×2020	2200×2020													
	1000	2400×2020	2400×2020															
	1100	2600×2020	2600×2020															

W: Wide car

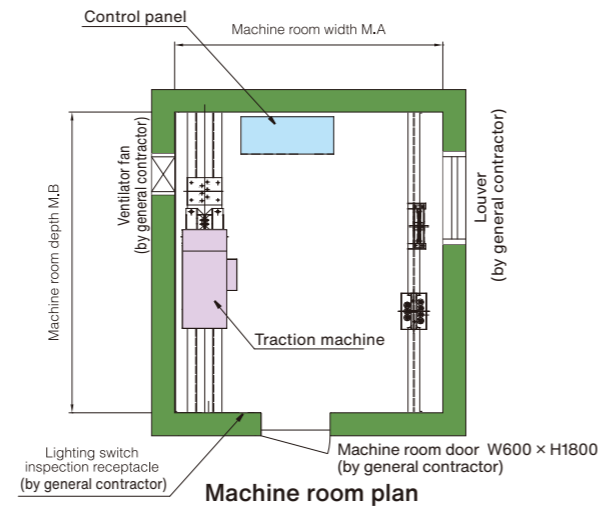
Note:

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- Hoistway dimensions take into account the error of up to 50 mm after the construction work.
- The hoistway dimensions in chart are the minimum requirement.
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- Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.
- OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.
- If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.
- If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.

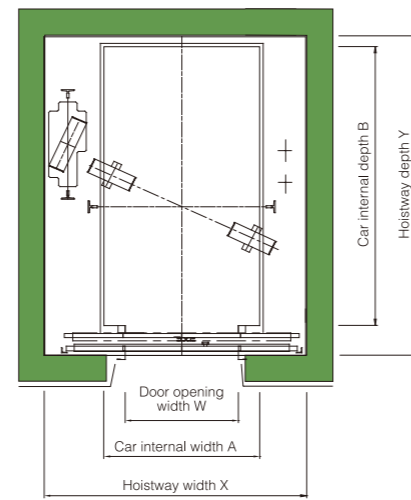
Hoistway Layout



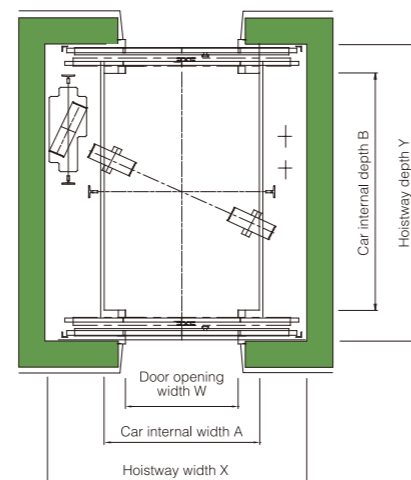
Hoistway section



Machine room plan



Hoistway plan (D)



Hoistway plan (D2)

Specifications

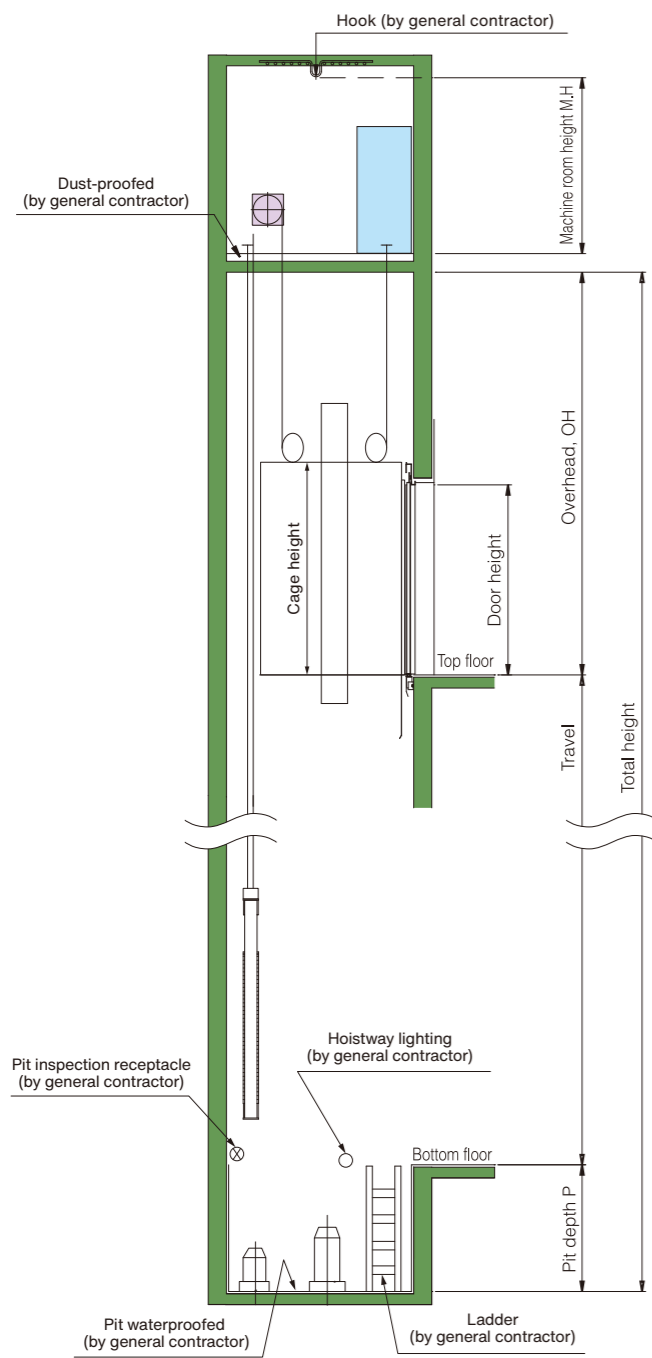
Type	Nos. of Person	Capacity (kg)	Speed (m/s)	Cage size Internal (mm)		Door entrance (mm)		C/W	Hoistway size (mm)			Machine room dimensions (mm)		Motor Capacity (kW)	Max. Service Stops (s)	Max. Travel (m)													
				A×B	Height	Width	Height		X×Y	OH	P	MA×MB	MH																
P8-CO60	D	8	630	1	1100×1400	2300	800	2100	Side	1940×1760	3700	1600	1940×1760	2100	3.6	40	90												
	900						2140×1760			2140×1760																			
P8-CO96	D						1.6			900			2140×1760					2140×1760											
P8-CO105	D						1.75			800			1940×1760					1940×1760											
							900			3950	1750	1940×1760		6.3		100													
P8-CO120	D		2				800			4050	1800	2140×1760		7.2		125													
							900																						
P11-CO60	D	11	825	1	1100×1700	2300	800	2100	Side	1950×2060	3700	1600	1950×2060	2100	4.7	40	90												
	900						2140×2060			2140×2060																			
P11-CO60	D2						1.6			800			1950×2170					1950×2170											
																				900			3900	1700	1950×2060		7.5		100
P11-CO96	D						1.6			800			1950×2170					1950×2170											
																				900			3950	1750	1950×2060		8.3		100
P11-CO96	D2						1.75			800			2140×2170					2140×2170											
																				900			4050	1800	2140×2060		9.5		125
P11-CO105	D						1.75			800			1950×2170					1950×2170											
																				900			4250	2100	2140×2060		11.8		125
P11-CO105	D2						2			800			2140×2170					2140×2170											
																				900									
P11-CO120	D	2	800	1950×2060	1950×2060																								
							900			4050	1800	2140×2060		9.5		125													
P11-CO120	D2	2.5	800	2140×2170	2140×2170																								
							900			4250	2100	2140×2060		11.8		125													
P11-CO150	D	2.5	800	1950×2170	1950×2170																								
							900																						
P11-CO150	D2	2.5	800	2140×2170	2140×2170																								
							900																						
P14-CO60	D	14	1050	1	1100×2100	2300	800	2100	Side	1950×2460	3700	1600	1950×2460	2100	6.0	40	90												
	900						2140×2460			2140×2460																			
P14-CO60	D2						1.6			800			1950×2570					1950×2570											
																				900			3900	1700	1950×2460		9.7		100
P14-CO96	D						1.6			800			2140×2460					2140×2460											
																				900			3950	1750	1950×2570		10.5		100
P14-CO96	D2						1.75			800			1950×2570					1950×2570											
																				900			4050	1800	2140×2460		12.0		125
P14-CO105	D						1.75			800			2140×2460					2140×2460											
																				900			4250	2100	1950×2460		15.0		125
P14-CO105	D2						2			800			1950×2570					1950×2570											
																				900									
P14-CO120	D	2	800	2140×2460	2140×2460																								
							900			4250	2100	1950×2460		15.0		125													
P14-CO120	D2	2.5	800	1950×2570	1950×2570																								
							900																						
P14-CO150	D	2.5	800	2140×2460	2140×2460																								
							900			4250	2100	1950×2570		15.0		125													
P14-CO150	D2	2.5	800	1950×2570	1950×2570																								
							900																						

D: Deep car D2: Front and rear opening door ※Consult our local distributor

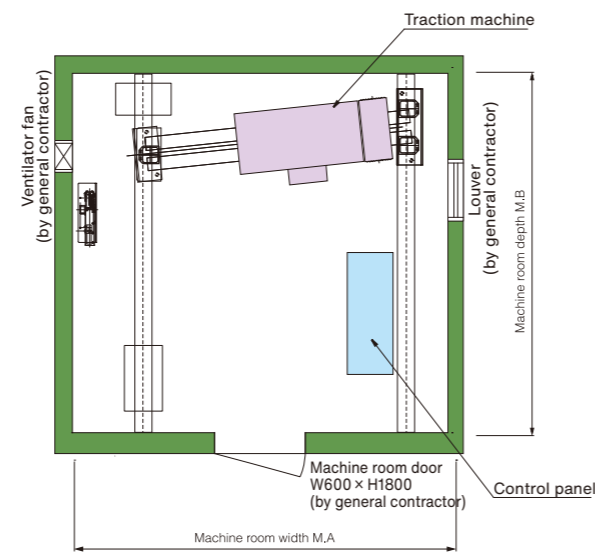
Note:

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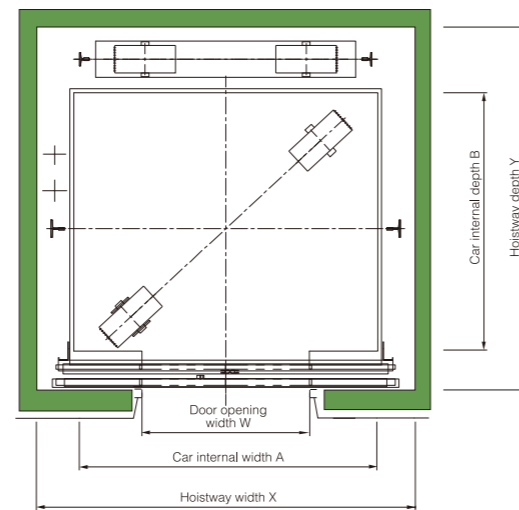
Hoistway Layout



Hoistway section



Machine room plan



Hoistway plan

Specifications

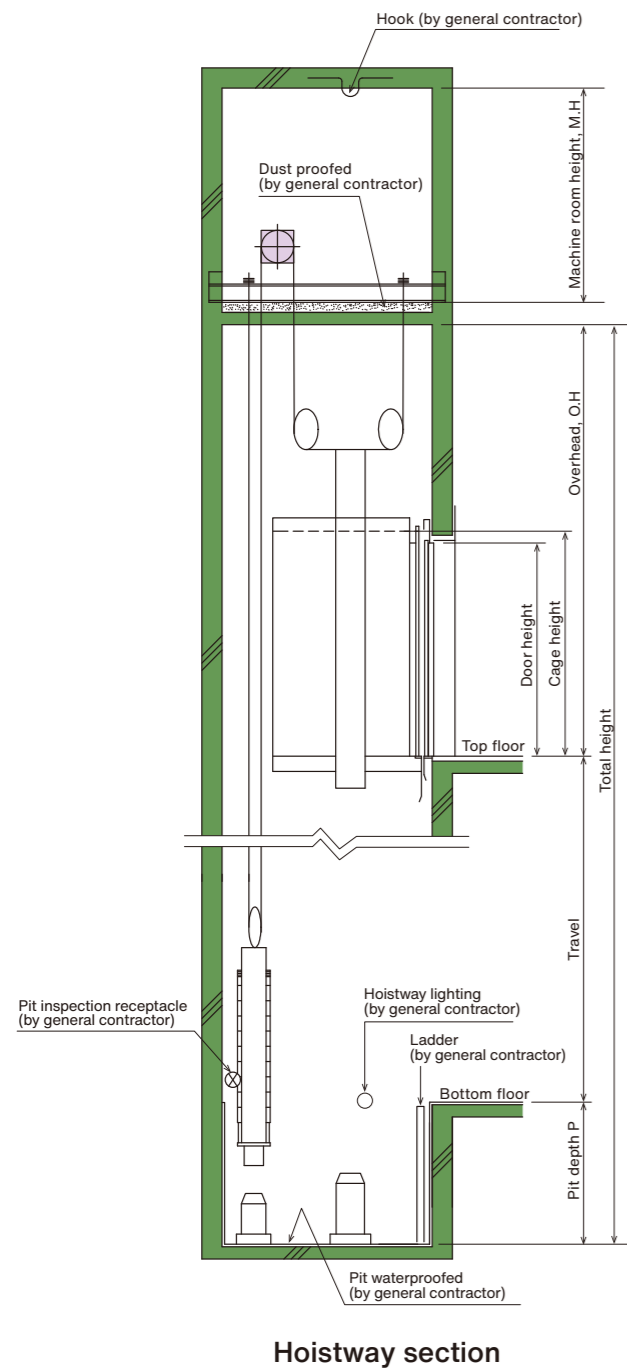
Type	Nos. of Person	Capacity (kg)	Speed (m/s)	Cage size Internal (mm)		Door entrance (mm)		C/W	Hoistway size (mm)			Machine room dimensions (mm)		Motor Capacity (kW)	Max. Service Stops (s)	Max. Travel (m)		
				A×B	Height	Width	Height		X×Y	OH	P	MA×MB	MH					
P13-CO180	W	13	1000	3	1600×1400	2300	800 900	2100	Rear	2100×2070 2150×2070	4250	2100	2100×2070 2150×2070	2200	18.0	48	150	
P15-CO60	W	15	1150	1	1800×1500	2300	1000 1100	2100	Rear	2350×2170 2550×2170	3900	1380	2350×2170 2550×2170	2100	7.0 12.0	48	90 100	
P15-CO96	W			1.6			1000 1100			2350×2170 2550×2170	4100	1450	2350×2170 2550×2170					
P15-CO105	W			1.75			1000			2350×2170	4150	1480	2350×2170					
P15-CO120	W			2			1000 1100			2350×2170 2550×2170	4250	1900	2350×2170 2550×2170					
P15-CO150	W			2.5			1000 1100			2350×2170 2550×2170	4500	2050	2350×2170 2550×2170					
P15-CO180	W			3			1000 1100			2350×2170 2550×2170	4950	2500	2350×2170 2550×2170					
P17-CO60	W	17	1275	1	2000×1400	2300	1100	2100	Rear	2550×2070	3900	1380	2550×2070	2100	8.0 12.0 14.0	48	90 100 150	
P17-CO96	W			1.6			1100				4150	1480						16.0
P17-CO105	W			1.75			1100				4250	1900						20.0
P17-CO120	W			2			1100				4500	2050						24.0
P17-CO150	W			2.5			1100				4950	2500						24.0
P17-CO180	W			3			1100				4950	2500						24.0
P18-CO60	W	18	1350	1	2000×1500	2300	1100	2100	Rear	2550×2170	3900	1380	2550×2170	2100	8.0 14.0 14.0	48	90 100 150	
P18-CO96	W			1.6			1100				4150	1480						16.0
P18-CO105	W			1.75			1100				4250	1900						20.0
P18-CO120	W			2			1100				4500	2050						24.0
P18-CO150	W			2.5			1100				4950	2500						24.0
P18-CO180	W			3			1100				4950	2500						24.0
P21-CO60	W	21	1600	1	2000×1700	2300	1100 1200	2100	Rear	2550×2370 2750×2370	3900	1380	2550×2370 2750×2370	2100	10.0 16.0	48	90 100	
P21-CO96	W			1.6			1100				4150	1480						18.0
P21-CO105	W			1.75			1100				4250	1900						20.0
P21-CO120	W			2			1100				4500	2050						24.0
P21-CO150	W			2.5			1100				4950	2500						28.0
P21-CO180	W			3			1100 1200				4950 2500	2500						28.0
P24-CO60	W	24	1800	1	2000×1750	2300	1200	2100	Rear	2750×2420	3900	1380	2750×2420	2100	12.0 18.0 20.0	48	90 100 150	
P24-CO96	W			1.6			1200				4150	1480						22.0
P24-CO105	W			1.75			1200				4250	1900						26.0
P24-CO120	W			2			1200				4500	2050						32.0
P24-CO150	W			2.5			1200				4950	2500						32.0
P24-CO180	W			3			1200				4950	2500						32.0
P26-CO60	W	26	2000	1	2100×1950	2300	1200	2100	Rear	2750×2620	3900	1380	2750×2620	2100	12.0 20.0 22.0	48	90 100 150	
P26-CO96	W			1.6			1200				4150	1480						24.0
P26-CO105	W			1.75			1200				4250	1900						30.0
P26-CO120	W			2			1200				4500	2050						36.0
P26-CO150	W			2.5			1200				4950	2500						36.0
P26-CO180	W			3			1200				4950	2500						36.0

W: Wide car

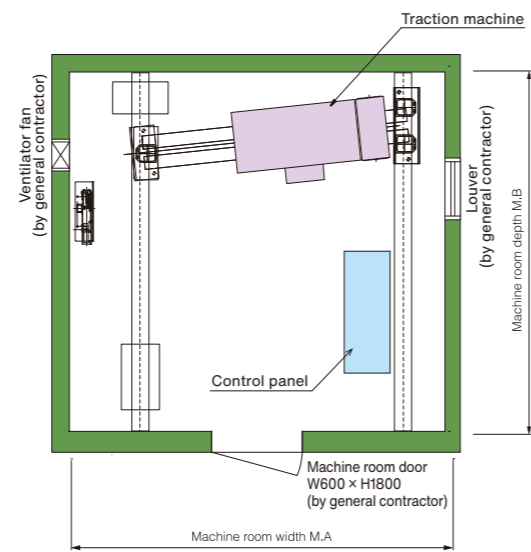
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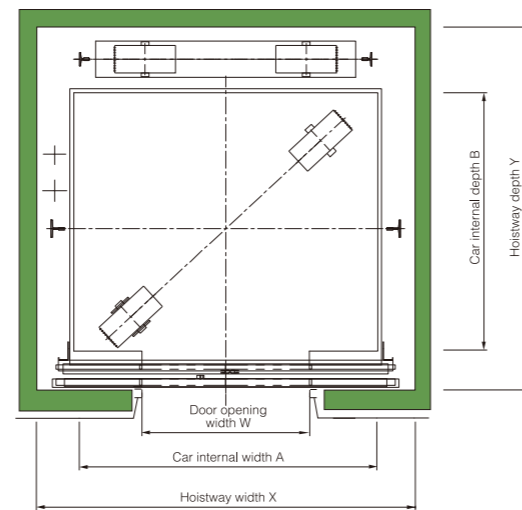
Hoistway Layout



Hoistway section



Machine room plan



Hoistway plan

Specifications

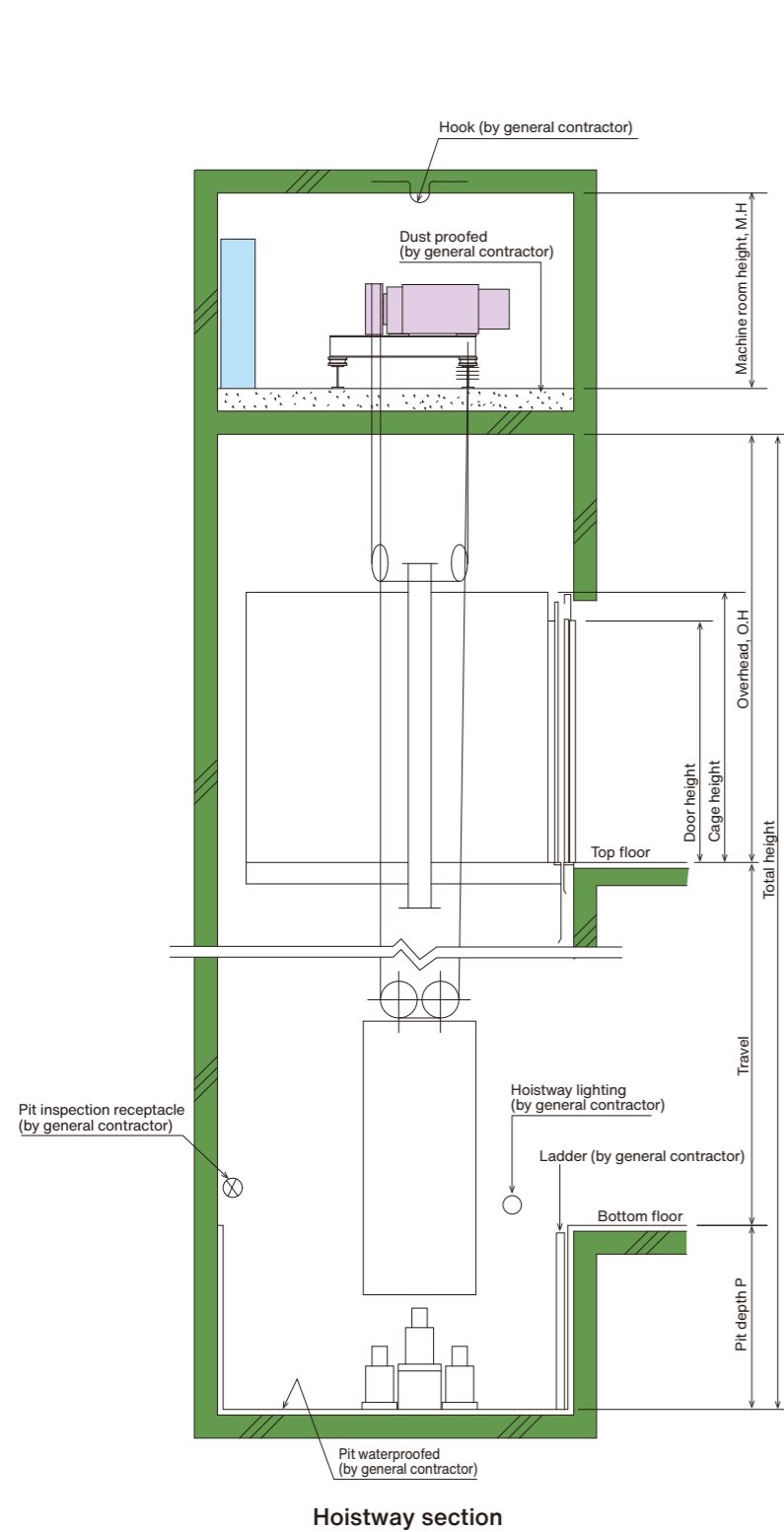
Type	Nos. of Person	Capacity (kg)	Speed (m/s)	Cage size Internal (mm)		Door entrance (mm)		C/W	Hoistway size (mm)			Machine room dimensions (mm)		Motor Capacity (kW)	Max. Service Stops (s)	Max. Travel (m)	
				A×B	Height	Width	Height		X×Y	OH	P	MA×MB	MH				
P12-CO210	W	12	900	3.5	1550×1350	2300	900	2100	Rear	2050×2100	5950	3250	2050×2100	2250	18.7	64	200
							1000			2250×2100			2250×2100				
							1100			2450×2100			2450×2100				
P12-CO240	W		4				900	2100	Rear	2050×2100	6500	3850	2050×2100	2250	21.3		
							1000			2250×2100			2250×2100				
							1100			2450×2100			2450×2100				
P13-CO210	W	13	1000	3.5	1600×1400	2300	900	2100	Rear	2050×2150	5950	3250	2050×2150	2250	20.7	64	200
							1000			2250×2150			2250×2150				
							1100			2450×2150			2450×2150				
P13-CO240	W		4				900	2100	Rear	2050×2150	6500	3850	2050×2150	2250	23.7		
							1000			2250×2150			2250×2150				
							1100			2450×2150			2450×2150				

W: Wide car

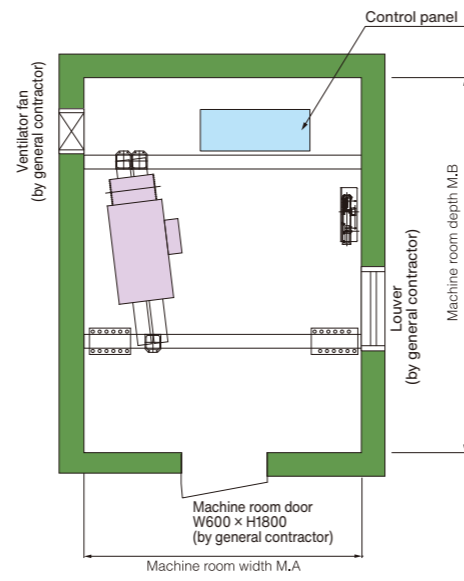
Note:

- The above table complies with EN81-20/50 standards.
- Please contact to our local distributor to check for other standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Hoistway dimensions take into account the error of up to 50 mm after the construction work.
- The hoistway dimensions in chart are the minimum requirement.
- The hoistway structure wall must be 150mm thick or more.
- Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.
- OH value in the chart is for standard type of ceiling models. As for the non-standard car designs, and ceiling models, please consult our local distributor.
- If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our distributor.
- If the location of power source panel, control panel and electric power supply are changed. Please consult our distributor.

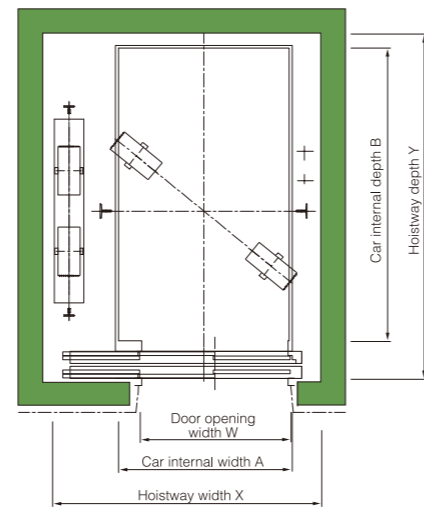
Hoistway Layout



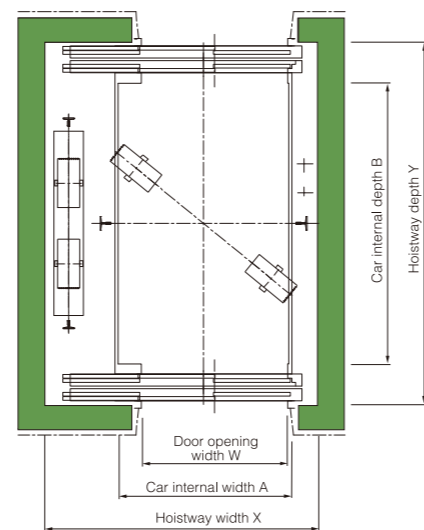
Hoistway section



Machine room plan



Typical floor hoistway plan (D)



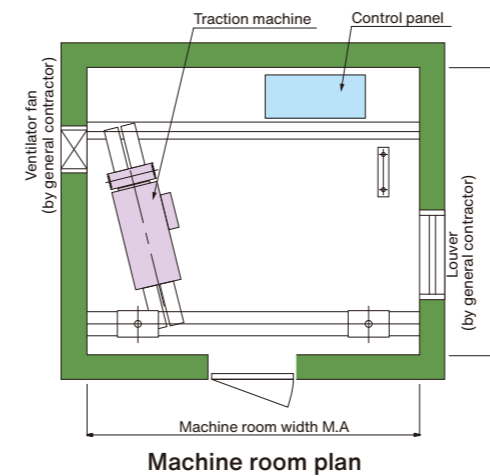
Typical floor hoistway plan (D2)

Specifications

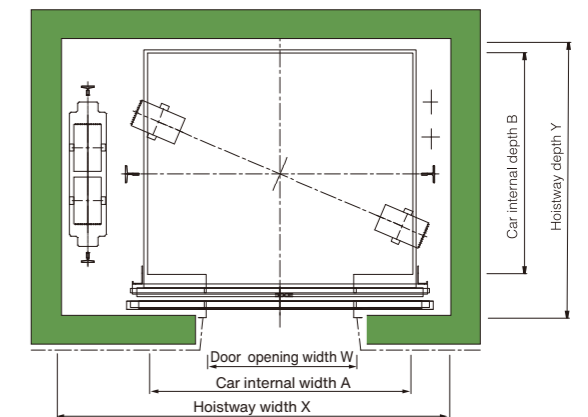
Type	Nos. of Person	Capacity (kg)	Speed (m/s)	Cage size Internal (mm)		Door entrance (mm)		C/W	Hoistway size (mm)			Machine room dimensions (mm)		Motor Capacity (kW)	Max. Service Stops (s)	Max. Travel (m)	
				A×B	Height	Width	Height		X×Y	OH	P	MA×MB	MH				
P13-CO180	W	13	1000	3	1600×1400	2300	800 900	2100	Side	2450×1850 2450×1850	4250	2100	2450×1850 2450×1850	2200	18.0	48	150
P15-CO60	W	15	1150	1.75	1800×1500	2300	1000	2100	Side	2650×1890	3900	1380	2650×1890	2200	7.0	48	90
P15-CO96	W						1100			2650×1890			2650×1890				
P15-CO105	W						1100			2650×1890			2650×1890				
P15-CO105	W						1000			2650×1890			2650×1890				
P15-CO120	W						1100			2650×1890			2650×1890				
P15-CO120	W						1000			2650×1890			2650×1890				
P15-CO150	W						1100			2650×1890			2650×1890				
P15-CO150	W						1100			2650×1890			2650×1890				
P15-CO180	W						1000			2650×1890			2650×1890				
P15-CO180	W						1100			2650×1890			2650×1890				
P17-2S60	D	17	1275	1.75	1200×2300	2300	1100	2100	Side	2110×2760	3900	1380	3900 1380	2200	48	150	
P17-2S96	D												4100 1450				
P17-2S105	D												4150 1480				
P17-2S120	D												4250 1900				
P17-2S150	D												4500 2050				
P17-2S180	D												4950 2500				
P17-2S60	D2												3900 1380				
P17-2S96	D2	4100 1450															
P17-2S105	D2	4150 1480															
P17-2S120	D2	4250 1900															
P17-2S150	D2	4500 2050															
P17-2S180	D2	4950 2500															
P21-2S60	D	21	1600	1.75	1400×2400	2300	1200	2100	Side	2280×2860	3900	1380	3900 1380	2200	48	150	
P21-2S96	D												4100 1450				
P21-2S105	D												4150 1480				
P21-2S120	D												4250 1900				
P21-2S150	D												4500 2050				
P21-2S180	D												4950 2500				
P21-2S60	D2												3900 1380				
P21-2S96	D2	4100 1450															
P21-2S105	D2	4150 1480															
P21-2S120	D2	4250 1900															
P21-2S150	D2	4500 2050															
P21-2S180	D2	4950 2500															

W: Wide car D: Deep car D2: Front and rear opening door ※: Consult our local distributor

- Note:**
- The above table complies with EN81-20/50 standards.
 - Please contact to our local distributor to check for other standards.
 - In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
 - Hoistway dimensions take into account the error of up to 50 mm after the construction work.
 - The hoistway dimensions in chart are the minimum requirement.
 - The hoistway structure wall must be 150mm thick or more.
 - Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.
 - OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.
 - If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.
 - If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.



Machine room plan



Typical floor hoistway plan (W)

Works by Others

Works below are not included in elevator installation works:

► Hoistways

1. Hoistway construction and fire-proofing, and opening for jambs, indicators and push-buttons, etc.
Please note that chipping or padding work is required according to the necessity, in case the error of the structure is 30 mm or over.
2. Installation of separating beams, intermediate beam, back beam and lateral beams (if necessary).
3. Installation of the base plate for each floor and of bed steel for furnishing the equipment related to landing entrance, in case of hoistways of steel structure of PC structure.
4. Fire-proofing of steel frame material in steel structured hoistways, and fire-proofing around landing entrances (if necessary).
5. Finishing of walls and floors, etc., around entrances, after furnishing equipment related to landing entrances.
6. Furnishing of base steel or others for furnishing rail brackets, especially where the floor height is high (if necessary).
7. Installation of the entrance or the gangway for pit inspection (if necessary).
8. Water-proofing of the pit (including drainage if necessary).
9. Rearrangement of the building body in case that there are some spaces to be used under the pit.
10. Installation of emergency exits for rescue purposes in the event there are floors at which the elevator does not stop and installation of a fascia plate.
11. Shelter equipment from rain at landing entrances directly contacting to the air in the place like roof.
12. Installation of hooks or beams on top of the elevator shaft.
13. Installation of lighting in hoistway (if necessary).
14. Installation of vent opening at the top of shaft (if necessary).
15. Installation of a net or wall to prevent falling into the pit (in cases where the pit level is different.)
16. All related to the building structure other than works above.

► Machine rooms

1. Construction of machine rooms and installation works of their entrances (including soundproofing work if necessary)
2. Fire-proofing for machine rooms and opening work for machine room floors.
3. Installation of machine beam supports and spacers.
4. Cinder concreting and finishing after floor piping in machine rooms.
5. Installation of hooks or beams on ceilings in machine rooms.
6. Installation of stairs leading to machine rooms and stairs in machine rooms (if necessary).
7. Installation of lighting and windows.
8. Dustproofing of floors.

► Works for Equipment

1. Wiring of the power supply for motors and that for lighting equipment, and of grounding to power source panels of elevators in the Elevator shaft.
2. Wiring of the power supply to the supervisory panels.
3. Piping and wiring of intercoms outside hoistway and of others necessary for elevators.
4. Supply and installation of switching devices for emergency power supply in case of power failure and two pairs of relay contacts for normal / emergency power identification, and their piping and wiring (if necessary).
5. Piping and wiring of supervisory panels, alarm panels and inter-communication systems, etc., outside hoistways.
6. Furnishing of receptacles for inspection in pits.

► Temporary Works

It is required to arrange the following matters:

1. To secure the site office for installation work and the stock yard for materials without charge.
2. Enclosure to be used during the installation work.
3. Supply of electric power for installation work and the trial operation for adjustment.
4. Security of enough passage for carrying heavy goods.
5. On use of elevator for the construction work of the building, It is required to make contract with a separate written estimate.

Note

During equipment planning of elevators, please take the following items into consideration:

1. Provide power facility so that voltage regulation of the power supply at the receiving terminals in the hoistway is kept within $\pm 10\%$ for the motor, and $\pm 2\%$ for the lighting equipments.
2. In the hoistways, please prevent the temperature from exceeding 40°C and humidity from exceeding 90% (monthly mean) and 95% (daily mean).
3. Please do not allow any chemically toxic gas or an excessive amount of dust to enter into the hoistways, as these can corrode the metal or electrical contacts.

When asking for an estimate, please inform us of the following:

1. Building name and address.
2. Desired type and number of set.
3. Number of stops.
4. Floor height.
5. Voltage and frequency of main power supply.
6. Desired completion date.

Memo

Global Network

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- Head office

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Together with our global partners, we connect with Asia and then the world, through our technology and our spirit.

This planet is our shared heritage. We must live together, grow together and delight in one another.

[For more information]

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<https://www.toshiba-elevator.co.jp/elv/infoeng/>

