

TOSHIBA

TOSHIBA COMPACT MACHINE ROOM ELEVATORS STANDARD PASSENGER ELEVATOR





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

72-34, Horikawa-cho, Saiwai-ku, Kawasaki 212-8585, Japan

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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N. C. T. M. C.



For EN standard

TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

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

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 specificati Range of application Passenge $8 \sim 26$ persons $630\sim 2000~{
m kg}$ Rated load Rated speed $1.0 \sim 4.0 \text{ m/s}^*$

4.0 3.5 3.0 2.5		
3.0		
2.5		
2.0		
1.75		
1.5/1.6		
1.0		
oad (kg)	630	825
Туре		P11
	1.75 1.5/1.6 1.0 pad (kg)	1.75 1.5/1.6 1.0 ad (kg) 630

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



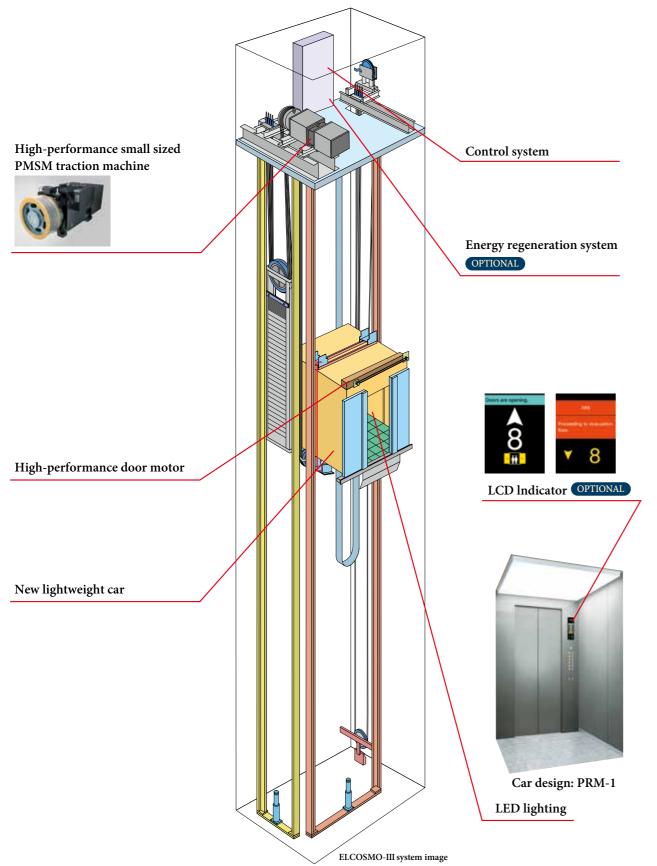
		CO	SI	ИО	-]]]			
900	1000	1050	1150	1275	1350	1600	1800	2000
P12	P13	P14	P15	P17	P18	P21	P24	P26



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New Technology

High-performance Small Sized PMSM Traction Machine

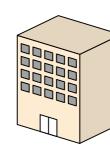
- ◆ Compact PMSM (Permanent Magnet Synchronous Motor) for space saving.
- ♦ Over 30% less power consumption (compared to conventional electric motor).
- Gearless traction without gear oil for low vibration, low noise and better environmental conservation.

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).



Building

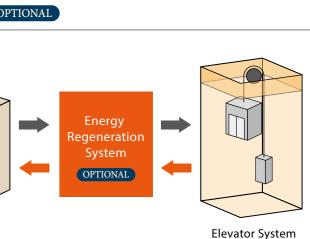
Use of Roller Guide OPTIONAL

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.









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 within150mm.

Ascending Car Overspeed Protection

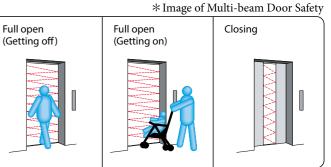
A device to prevents an elevator ascending to the elevator shaft top beyond the rated speed due to a device like an electromagnetic brake or control unit. It monitors the speed of the upper direction mechanically by a governor, then cut off the power supply and safety circuit by an overspeed detecting 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

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Automatic Landing in Power Failure

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.)

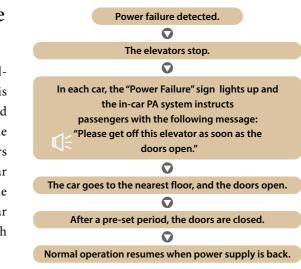
Earthquake Emergency Operation

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.

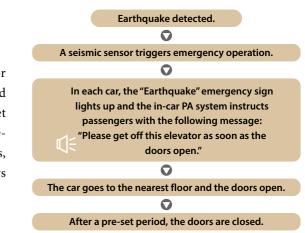
Fire Emergency Operation

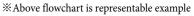
This emergency operation is automatically triggered in case of a fire, when a fire alarm button is actuated, or when a Fire/Smoke Detector detects an abnormality. All hall calls and floor selections are cancelled, passengers are informed of the emergency procedure with a "Fire" sign and a voice announcement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

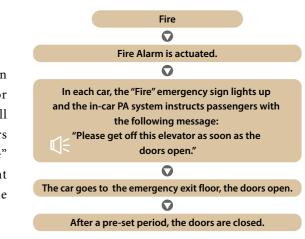
Safety Function











 $\ref{Above flowchart is representable example}$



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.



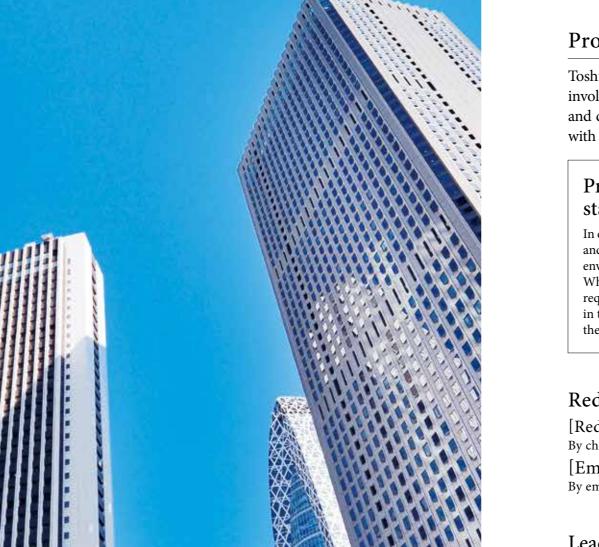
Products and functions adopted to reduce power consumption

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)





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.





OPTIONAL PRM-1

Front side view



Back side view



	DD3 ()
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)
СОР	POP-G1L-104C
Indicator	10.4inch LCD
Handrail	Stainless steel flat type hand rail
Remark	Applies to models with a capacity of 1150kg or more.

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.















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)
СОР	COP-G1L-57B
Indicator	5.7inch LCD
Handrail	Stainless steel round type hand rail

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.















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)
СОР	POP-G1L-84C
Indicator	8.4 inch LCD
Handrail	Nil

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-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)
СОР	POP-G1L-57B
Indicator	5.7 inch LCD
Handrail	Nil

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.













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



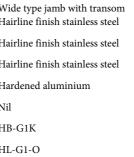
Hall Decoration Item Variation

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



Hall design 1 OPTIONAL

Hall jamb	Wide type jan Hairline finish
Hall door	Hairline finish
Hall transam	Hairline finish
Hall sill	Hardened alu
Hall indicator	Nil
Hall button	HB-G1K
Hall lantern	HL-G1-O





HB-G1K

Note : In the case of jamb with transom, fire-proof specification cannot be applied to the transom. The actual product colors may vary slightly from those printed colors in this catalog.



Hall design 6 STANDARD



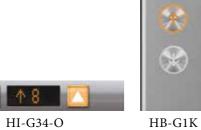
Hall design 7



HL-G1-O

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





Hall design 3	OPTIONAL
---------------	----------

Hall jamb	Wide type jamb Painted steel panel (66YS)
Hall door	Painted steel panel (66YS)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator	Nil
Hall button	HIB-G1NL
Hall lantern	HL-G1-O



HIB-G1NL









HL-G1-O

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

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Hall design 5	OPTIONAL)
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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



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HB-G1K



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



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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





Car Operation Panel: POP type

XNote: Applicable to Wide Car type models

Car Operation Panel







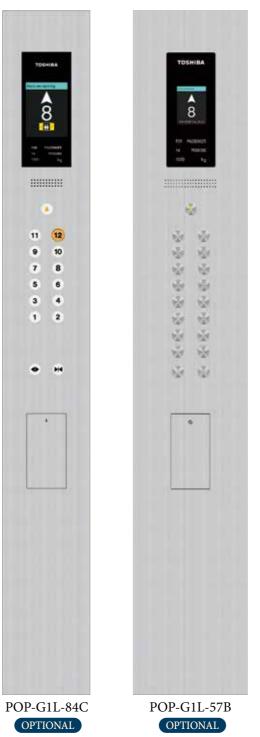
KB-3 (Orange light)

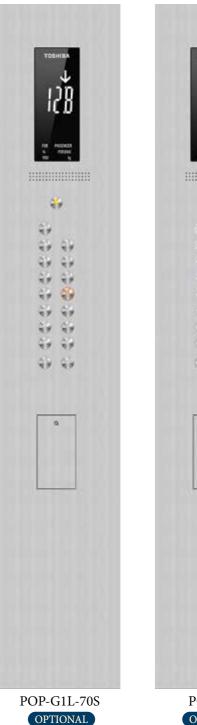
PRM-1



OPTIONAL

Car Operation Panel







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

Car Operation Panel: POP type

XNote: Applicable to Wide Car type models

Car Operation Panel





7 inch LCD Segment



Button

DLX-31



Car Operation Panel





7 inch LCD Segment

SL-P1



Button



GS-5B-WT



Car Operation Panel: FCOP type

XNote: Applicable to Deep Car type models

Car Operation Panel







8.4 inch LCD KB-7 (Orange light)

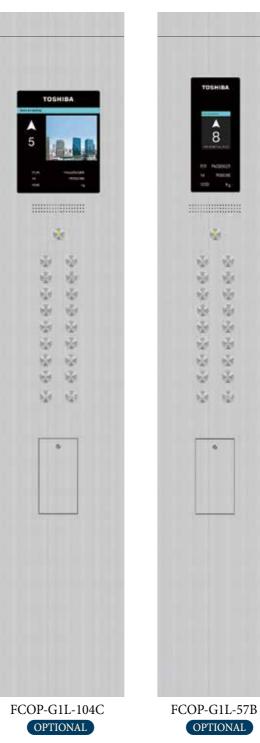
DLX-24

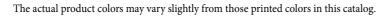
Indicator ors are op

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Car Operation Panel





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Har Ascances N Harone	tas Australia National
÷,	
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	15 13 14 11 12 9 10 7 8 5 6 3 4 1 2 • • •
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FCOP-G1L-70S OPTIONAL	FCOP-G1L OPTIONAL

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

Car Operation Panel: FCOP type

 $\ensuremath{\overset{\scriptstyle\frown}{\scriptstyle{\scriptstyle{\sim}}}}$ Note: Applicable to Deep Car type models

Car Operation Panel





7 inch LCD Segment



Button

TL-S2

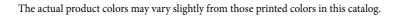


Car Operation Panel









Segment

Button



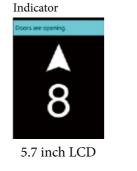
GS-5B-WT

Car Operation Panel: COP type

*Note: Applicable to all models

Car Operation Panel







KB-7 (Orange light)



Car Operation Panel



TOSHIBA

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Hall Indicator Button: HIB type

Hall Indicator Button



LCD Hall Indicator

Toshiba's universal designed 4.3 inch LCD hall indicators are capable of displaying various announcements such as emergency operation, maintenance status, etc.

4.3 inch LCD display



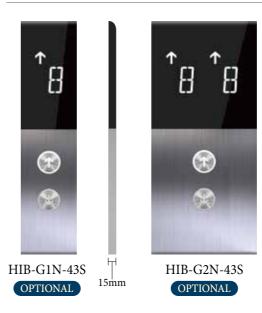
4.3inch LCD segment



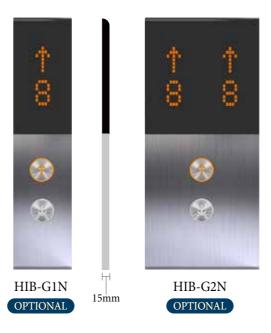


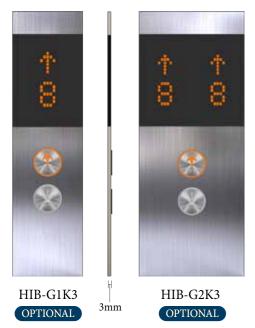
Hall Indicator Button

4.3 inch LCD segment



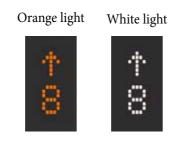
LED Dot Matrix





LED Dot Matrix

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



Detail of display









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

Hall Indicator

Hall Indicator OPTIONAL





HI-G1-O





LED Dot matrix

Hall Lantern

Hall Lantern OPTIONAL

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





HL-G2-W (White light)

LCD Hall Indicator OPTIONAL

5.7 inch large LCD hall indicator is capable of displaying visuals linked from car security camera.







Hall Button OPTIONAL



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



HL-G3-O (Orange light)



HL-G4-O (Orange light)



G1K series

3mm

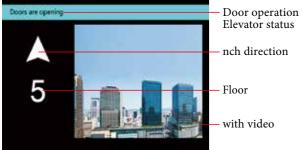
Car Position Indicator

Large LCD Indicator for Car Operation Panel OPTIONAL

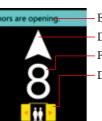
These 10.4 inch and 8.4 inch LCD indicators are capable of displaying in the elevator's various conditions (emergency operations, maintenance status) in large icons and letter in highly visible colors.

10.4 inch display for car operation panel

General car display (Without monitoring)



Elevator status nch direction

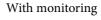


8.4 inch display for car operation panél

-Elevator Status -Direction - Floor - Door Operation

5.7 inch display for car operation panel

General car display







7.0 inch LCD segment







Display under controlled status



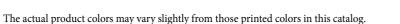


▲ With monitoring

▲ Fire emergency operation







With video



LED Dot matrix



Controlled status



Functions

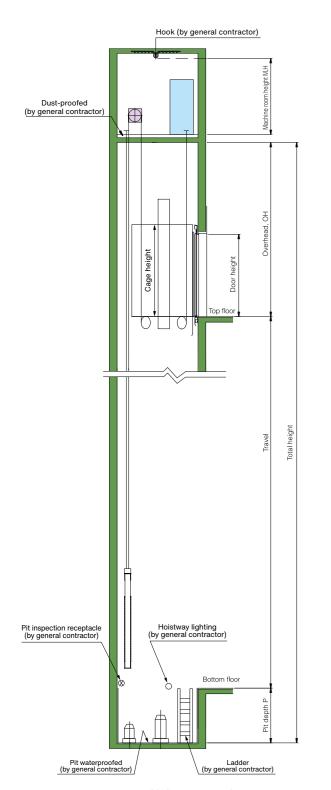
 \bigcirc : STANDARD \triangle : OPTIONAL

Functions	Notes	Descriptions						
Functions								
-	Simplex selective-collective fully automatic operation	Fully automatic operation by hall and car calls for single car	0					
Operations	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						
	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	0					
	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.	0					
	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						
Safety	Emergency operation indication at COP	In the event of an emergency, the emergency operation status will be displayed at COP						
Functions	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	0					
	Emergency call button	A button for passenger to make an emergency call when they are trapped inside the lift	0					
	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	0					
	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by						
Service Functions	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 cutt-off floors even after in use. This is the most appropriate type for such office buildings as their tenants are not yet fixed before complection.						

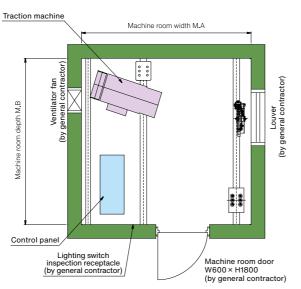
Notes
1: Not applicable to lift car with through door.
2: Fire emergency operation and fireman service cannnot be applied simultaneously.
3: Standard function for 2-car operation or 3-car operation.
4: Over 5 stops and in-car weight less than 150 kg.

Functions	Notes	Descriptions									
	Service floor cut-off selection [Manual]	linstalling 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	0								
	Nuisance call cancellation (Note 4)	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation	0								
	Door repeated opening	When an obstacle is detected, the door will repeatedly open and close until the obstacle is removed	0								
	Car indicator	Car indicator with the car operating panel	0								
	Adjustable door opening time	Adjusts the door opening time to reflect building usage	0								
	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									
Service Functions	Sub car operating panel	Additional car operating panel									
Tunotono	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	0								
	Parking operation [Automatic]	Parks the lift at designated floor auotmatically									
	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	0								
	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	0								
	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									

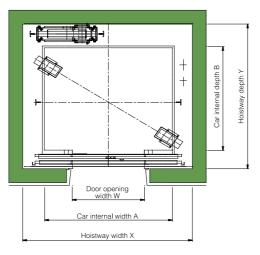
 \bigcirc : STANDARD \triangle : OPTIONAL



Hoistway section



Machine room plan



Hoistway plan (W)

Specifications

Type Nos.o		Nos.of	Capacity (kg)	Speed	Cage s Internal(Door en (mr		C/W	Hoistway	size(mr	n)	Machine ro dimensions		Motor Capacity	Max. Service	Max. Trave															
		Person	(Kg)	(m/s)	AxB	Height	Width	Height		X×Y	OH	Р	MA×MB	MH	(kW)	Stops(s)																
P8-CO60	w			1			800 900			2000 x 1720 2200 x 1720	3700	1450	2000 x 1720 2200 x 1720		3.6		90															
							800			2000 x 1720			2000 x 1720	1																		
P8-CO96	w			1.6			900			2200 x 1720	3900	1500	2200 x 1720	1	5.8		400															
							800			2000 x 1720			2000 x 1720	1		40	100															
P8-CO105	W	8	630	1.75	1400×1100	2300	900	2100	Rear	2200 x 1720	3950	1550	2200 x 1720	2100	6.3	40																
P8-CO120	w	1		2	1		800			2000 x 1720	4050	1650	2000 x 1720]	7.2																	
P8-C0120	vv			2			900			2200 x 1720	4050	1000	2200 x 1720]	1.2		125															
P8-CO150	w			2.5			800			2000 x 1720	4250	2100	2000 x 1720		9.0		120															
F0-C0150	vv			2.0			900			2200 x 1720	4230	2100	2200 x 1720		3.0																	
P11-CO60	w			1			800			2000 x 1970	3700	1450	2000 x 1970		4.7		90															
F11-CO00	~~						900			2200 x 1970	5700	1430	2200 x 1970		4.7	ļĹ																
P11-CO96	w				1.6			800			2000 x 1970	3900 15	1500	2000 x 1970		7.5																
111-0030	**			1.0	 1400×1350 	2300	900	2100	Rear	2200 x 1970	3950 1550 3950 1550 4050 1650	1500	2200 x 1970	2100	7.5	40	100															
P11-CO105	w	11	825	1.75			800			2000 x 1970		1550	2000 x 1970		8.3																	
1 11 00 100			020	1.10			900			2200 x 1970			2200 x 1970																			
P11-CO120	w			2			800			2000 x 1970		1650	2000 x 1970	9.5																		
							900			2200 x 1970			2200 x 1970	-			125															
P11-CO150	w					2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5			800	-		2000 x 1970	4250	2100	2000 x 1970	-	11.8					
						900		2200 x 1970			2200 x 1970			+																		
							900			2200 x 2020	0700	4450	2200 x 2020	-			00															
P13-CO60	w																		1			1000 1100	-		2400 x 2020 2600 x 2020	3700	1450	2400 x 2020 2600 x 2020	-	5.7		90
					-		900			2000 x 2020 2200 x 2020			2600 x 2020 2200 x 2020	-																		
P13-CO96	w			1.6			1000			2200 x 2020 2400 x 2020	3900	1500	2200 x 2020 2400 x 2020	-	9.2																	
F 13-CO90	vv			1.0			1100			2400 x 2020	3300	1300	2600 x 2020	1	5.2																	
							900			2000 x 2020			2200 x 2020	1			100															
P13-CO105	w	13	1000	1.75	1600×1400	2300	1000	2100	Rear	2400 x 2020	3950	1550	2400 x 2020	2100	10.0	40																
1 13-00103	**			1.75		2000	1100	2.00		2600 x 2020		1000	2600 x 2020	2.000																		
							900			2200 x 2020			2200 x 2020	1																		
P13-CO120	w			2			1000			2400 x 2020	4050	1650	2400 x 2020	ł	11.4																	
				-			1100			2600 x 2020	1		2600 x 2020	1																		
							900			2200 x 2020			2200 x 2020	1			125															
P13-CO150	w			2.5			1000			2400 x 2020	4250	2100	2400 x 2020		14.3																	
							1100			2600 x 2020			2600 x 2020	1																		

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.

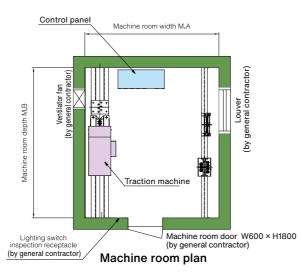
· Hoistway dimensions take into account the error of up to 50 mm after the construction work.

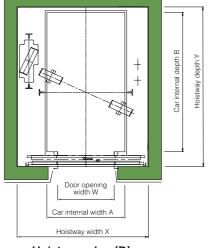
- . The hoistway dimensions in chart are the minimum requirement.
- The hoistway structure wall must be 150mm thick or more.
- Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.
 OH value in the chart is for standard ceiling. As for the non-standard cars, 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.

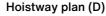
• If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.

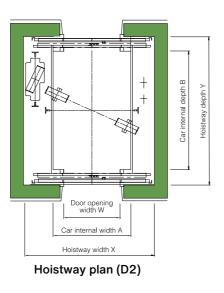
Hook (by general contractor) Dust-proofed (by general contractor) Fop floo otal Hoistway lighting (by general contractor) Pit inspection receptacle (by general contractor) Bottom floor ٨Ф Ladder (by general contractor) Pit waterproofed (by general contractor)

Hoistway section









Specifications

Туре		Nos.of	Capacity	Speed	Cage s Internal(size mm)		ntrance m)	C/W	Hoistway	/ size(m	m)	Machine n dimensions	oom (mm)	Motor Capacity	Max. Service	Max. Travel							
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Person	(kg)	(m/s)	AxB	Height	Width	Height		X×Y	OH	Р	MA×MB	MH	(kW)	Stops(s)	(m)							
P8-CO60	D			1			800			1940 x 1760	3700	1600	1940 x 1760		3.6		90							
Po-C000				1			900			2140 x 1760	3700	1000	2140 x 1760				3.0	ļ	90					
P8-CO96	D			1.6			800			1940 x 1760	3900	1700	1940 x 1760		5.8									
				1.0			900			2140 x 1760			2140 x 1760		0.0		100							
P8-CO105	D	8	630	1.75	1100×1400	2300	800	2100	Side	1940 x 1760	3950	1750	1940 x 1760	2100	6.3	40	100							
							900 800			2140 x 1760 1940 x 1760			2140 x 1760 1940 x 1760											
P8-CO120	D			2			900			2140 x 1760	4050	1800	2140 x 1760		7.2									
							800			1940 x 1760			1940 x 1760				125							
P8-CO150	D			2.5			900			2140 x 1760	4250	2100	2140 x 1760		9.0									
P11-CO60	D						800			1950 x 2060			1950 x 2060			40								
P11-C060				1			900			2140 x 2060	3700	1600	2140 x 2060		4.7	40	90							
P11-CO60	D2						800			1950 x 2170	3/00	1000	1950 x 2170		4.7	*	00							
							900			2140 x 2170			2140 x 2170			~								
P11-CO96	D						800			1950 x 2060	-		1950 x 2060			40								
				1.6			900 800			2140 x 2060 1950 x 2170	3900	1700	2140 x 2060 1950 x 2170		7.5									
P11-CO96	D2		825				900			2140 x 2170	1		2140 x 2170			*								
				825				800			1950 x 2060			1950 x 2060				100						
P11-CO105	D								4400-4700	0000	900	0100		2140 x 2060	1		2140 x 2060	0100		40				
D44 00405	-	11			5 1.75	1100×1700	2300	800	2100	Side	1950 x 2170	3950	1750	1950 x 2170	2100	8.3	*							
P11-CO105									900			2140 x 2170			2140 x 2170]		*						
P11-CO120	D						800	-		1950 x 2060	4050 1800	1950 x 2060			40									
				2	-		900			2140 x 2060		1800	2140 x 2060		9.5									
P11-CO120	D2						800			1950 x 2170	-		1950 x 2170			*								
							900 800			2140 x 2170 1950 x 2060			2140 x 2170 1950 x 2060				125							
P11-CO150	D					.					<u> </u>			900			2140 x 2060			2140 x 2060			40	
				2.5			800			1950 x 2170	4250 210	2100	1950 x 2170	1	11.8 -									
P11-CO150	D2						900			2140 x 2170	1		2140 x 2170			*								
D44.0000							800			1950 x 2460			1950 x 2460			40								
P14-CO60	D			1			900			2140 x 2460	3700	1600	2140 x 2460		6.0	40	90							
P14-CO60	D2						800			1950 x 2570	0,00	1600	1950 x 2570		0.0	*	30							
							900			2140 x 2570			2140 x 2570											
P14-CO96	D						800 900			1950 x 2460 2140 x 2460	-		1950 x 2460 2140 x 2460			40								
				1.6			800			1950 x 2570	3900	1700	1950 x 2570		9.7									
P14-CO96	D2						900			2140 x 2570	1		2140 x 2570			*								
							800			1950 x 2460			1950 x 2460			40	100							
P14-CO105	D		1050	1.75	1100×2100	2300	900	2100	Side	2140 x 2460	3950	1750	2140 x 2460	2100	10.5	40								
P14-CO105	2	14	1050	1.75	1100*2100	2300	800	2100	Side	1950 x 2570	3950	1750	1950 x 2570	2100	10.5	*								
1 14-00103	02						900			2140 x 2570			2140 x 2570			~								
P14-CO120	D	-					800			1950 x 2460			1950 x 2460]		40								
				2			900			2140 x 2460	4050	1800	2140 x 2460		12.0									
P14-CO120	D2						800 900			1950 x 2570 2140 x 2570	-		1950 x 2570 2140 x 2570	-		*								
							800			2140 x 2570 1950 x 2460			1950 x 2460			──┤	125							
P14-CO150	D						900			2140 x 2460			2140 x 2460			40								
Du cours	-			2.5			800			1950 x 2570	4250	2100	1950 x 2570		15.0	~								
P14-CO150	D2						900			2140 x 2570	1		2140 x 2570			*								
D: Deep ca	- F	DD. Eron	t and ra	oronon	ing door	*Cono	ultourlo	ool diat			•	•												

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.

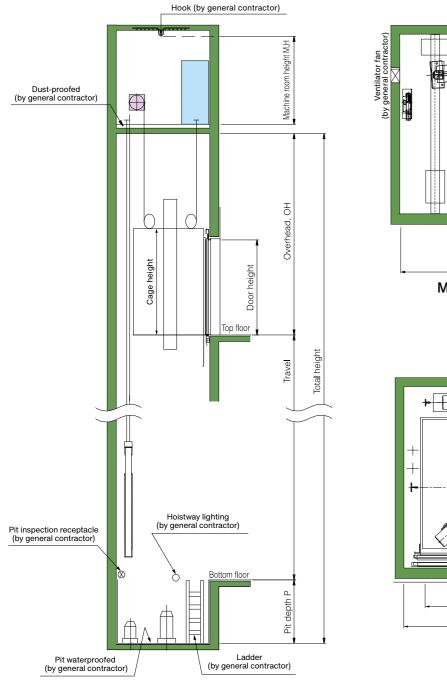
• Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.

• OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.

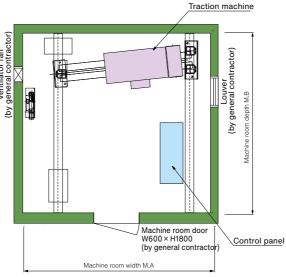
• If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.

• If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.

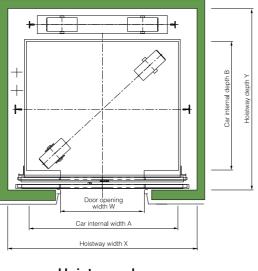
Specifications



Hoistway section



Machine room plan



Hoistway plan

Туре		Nos.of Person		Speed	Cage size Internal(mm)		Door entrance (mm)		C/W	Hoistway size(mm)		m)	Machine ro dimensions	oom (mm)	Motor Capacity	Max. Service	Max. Travel
		Person	(kg)	(m/s)	AxB	Height	Width	Height		Х×Ү	OH	Р	MA×MB	MH	(kW)	Stops(s)	(m)
P13-CO180	w	13	1000	3	1600×1400	2300	800 900	2100	Rear	2100 x 2070 2150 x 2070	4250	2100	2100 x 2070 2150 x 2070	2200	18.0	48	150
							1000			2350 x 2170			2350 x 2170				
P15-CO60	w	15		1			1100	1		2550 x 2170	3900	1380	2550 x 2170		7.0		90
					1	2300	1000		Rear	2350 x 2170			2350 x 2170	4			
P15-CO96	W		1150	1.6			1100			2550 x 2170	4100	1450	2550 x 2170		12.0		
					1800×1500		1000			2350 x 2170			2350 x 2170				100
P15-CO105	w			1.75			1100	2100		2550 x 2170	4150	1480	2550 x 2170	2100	12.0	48	
D45 00400				2			1000			2350 x 2170	4050		2350 x 2170		44.0		
P15-CO120	W						1100	1		2550 x 2170	4250	1900	2550 x 2170		14.0		
P15-CO150	w			2.5			1000			2350 x 2170	4500	2050	2350 x 2170		18.0		150
113-00130	**			2.5			1100			2550 x 2170	4000	2030	2550 x 2170		10.0		150
P15-CO180	w			3			1000			2350 x 2170	4950	2500	2350 x 2170		22.0		
							1100			2550 x 2170			2550 x 2170				
P17-CO60	W			1			1100	2100			3900	1380			8.0	-	90
P17-CO96	W			1.6		2300					4100	1450			12.0		100
P17-CO105	W	17	1275	1.75	- 2000×1400 -				Rear	2550 x 2070	4150 4250	1480 1900	2550 x 2070	2100	14.0 16.0	48	
P17-CO120 P17-CO150	W			2.5							4250	2050			20.0		150
P17-CO130	W			2.5							4950	2500			20.0		150
P18-CO60	W			1							3900	1380			8.0		90
P18-CO96	w		1350	1.6	- 2000×1500	2300	1100	2100	Rear		4100 4150	1450	2550 x 2170	2100	14.0		
P18-CO105	w			1.75								1480			14.0		100
P18-CO120	w	18		2						2550 x 2170	4250	1900			16.0	48	
P18-CO150	W			2.5							4500 4950	2050			20.0		150
P18-CO180	W			3								2500			24.0		
P21-CO60	w			1	- - 2000×1700	2300	1100	2100		2550 x 2370	3900	1380	2550 x 2370 2750 x 2370 2550 x 2370	-	10.0		90
121-0000	~~						1200			2750 x 2370	3900	1300			10.0		
P21-CO96	w			1.6			1100			2550 x 2370	4100	1450			16.0		
. 2. 0000							1200			2750 x 2370	4100	1100	2750 x 2370			-	100
P21-CO105	w			1.75			1100		Rear	2550 x 2370	4150	1480	2550 x 2370		18.0		
		21	1600	2 2.5			1200 1100			2750 x 2370		2750 x 2370	2100		48	<u> </u>	
P21-CO120	w						1200			2550 x 2370	4250 1900	1900	2550 x 2370	-	20.0	-	150
							1100			2750 x 2370 2550 x 2370			2750 x 2370 2550 x 2370				
P21-CO150	W						1200			2750 x 2370	4500 2050	2050	2750 x 2370		24.0		
				-			1100			2550 x 2370			2550 x 2370				
P21-CO180	W			3			1200			2750 x 2370	4950	2500	2750 x 2370		28.0		
P24-CO60	w			1							3900	1380			12.0		90
P24-CO96	W			1.6							4100	1450			18.0		
P24-CO105	W	24	1800	1.75	2000×1750	2200	1200	2100		2750 x 2420	4150	1480	2750 x 2420	2100	20.0	48	100
P24-CO120	W	24	1000	2	2000×1750	2300	1200	2100	Rear	2750 X 2420	4250	1900	2750 x 2420	2100	22.0	40	
P24-CO150	W			2.5							4500	2050			26.0		150
P24-CO180	W			3							4950	2500			32.0		
P26-CO60	W			1							3900	1380			12.0		90
P26-CO96	W			1.6		2300					4100	1450			20.0		100
P26-CO105	W	26	2000	1.75	2100×1950		1200	2100	Rear	2750 x 2620	4150	1480	2750 x 2620	2100	22.0	48	150
P26-CO120	W			2							4250 4500	1900 2050			24.0 30.0		
P26-CO150		-		2.5 3							4500 4950	2050			30.0 36.0	-	
P26-CO180	W																i i

Note:

• The above table complies with EN81-20/50 standards.

• Please contact to our local distributor to check for other standards.

· 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.

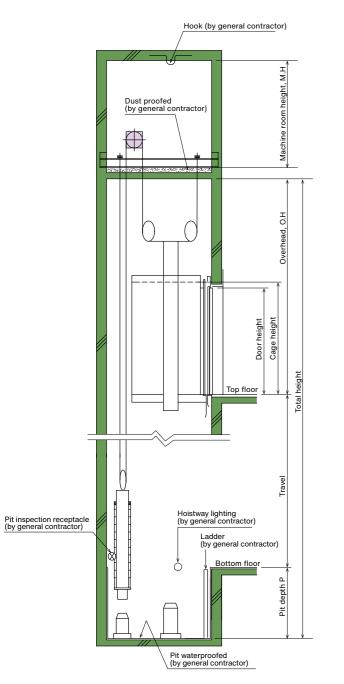
• Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.

• OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.

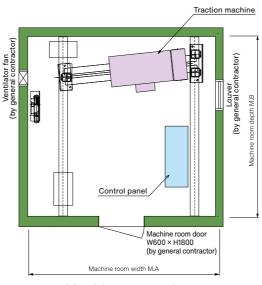
• If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.

• If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.

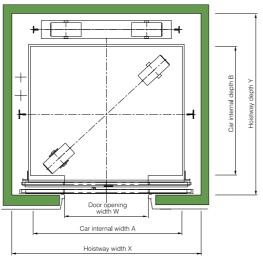
• In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.



Hoistway section

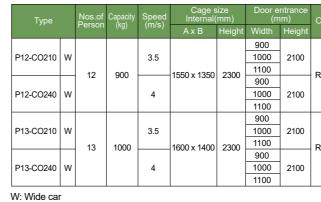


Machine room plan



Hoistway plan

Specifications



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 dimentions in chart are the minimum requiment.

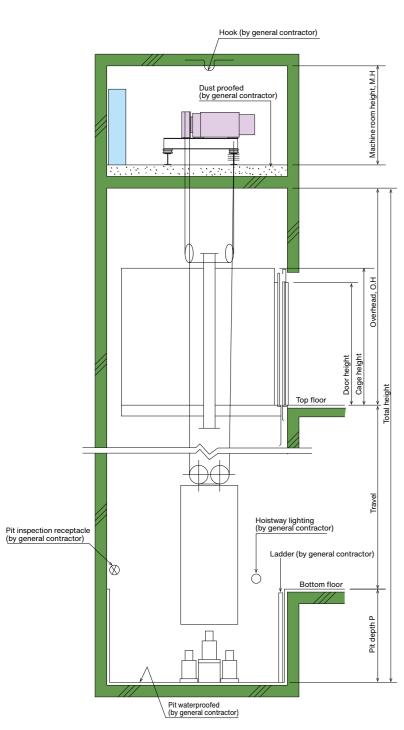
The hoistway structure wall must be 150mm thick or more.

Piping, wing 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.

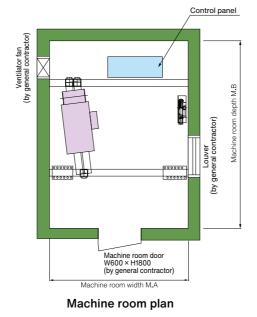
• If the location of power source panel, control panel and electric power supply are changed. Please consult our distributor.

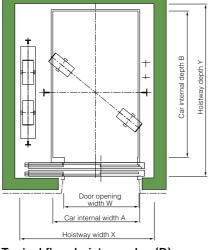
C/W	Hoistway	size(m	m)	Machine ro dimensions		Motor Capacity	Max. Service	Max. Travel	
	X×Y	OH		MA×MB	MH	(kW)	Stops(s)	(m)	
	2050 x 2100		3250	2050 x 2100					
	2250 x 2100	5950		2250 x 2100	2250	18.7			
Rear	2450 x 2100			2450 x 2100			64	200	
(ear	2050 x 2100		3850	2050 x 2100			04	200	
	2250 x 2100	6500		2250 x 2100	2250	21.3			
	2450 x 2100			2450 x 2100					
	2050 x 2150		3250	2050 x 2150					
	2250 x 2150	5950		2250 x 2150	2250	20.7			
Rear	2450 x 2150			2450 x 2150			64	200	
	2050 x 2150			2050 x 2150			01	200	
	2250 x 2150	6500	3850	2250 x 2150	2250	23.7			
	2450 x 2150			2450 x 2150					

Specifications

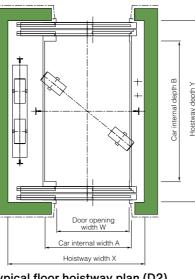


Hoistway section





Typical floor hoistway plan (D)



Typical floor hoistway plan (D2)

Туре		Nos.of	Capacity	Speed	Cage size Internal(mm)		Door entrance (mm)		C/W	Hoistway size(m)	Machine room dimensions (mm)		Motor Capacity	Max. Service	Max. Travel
		Person	(kg)	(m/s)	A x B	Height	Width	Height		X×Y	OH	Р	MA×MB	MH	(kW)	Stops(s)	
P13-CO180	w	13	1000	3	1600×1400	2300	800 900	2100	Side	2450 x 1850 2450 x 1850	4250	2100	2450 x 1850 2450 x 1850	2200	18.0	48	150
P15-CO60							1000		Side	2650 x 1890		1000	2650 x 1890		7.0		
P15-CO60	W			1			1100			2650 x 1890	3900 1380 4100 1450	1380	2650 x 1890		7.0		90
P15-CO96				10	1		1000			2650 x 1890		4450	2650 x 1890	1	12.0		
P15-CO96	W			1.6			1100			2650 x 1890		1450	2650 x 1890		12.0		100
P15-CO105	w			4.75			1000			2650 x 1890	4150	1480	2650 x 1890		12.0		100
P15-CO105	vv	15	1150	1.75	1800×1500		1100	2100		2650 x 1890	4150	1460	2650 x 1890	2200	12.0	48	
P15-CO120	w			2			1000			2650 x 1890	4250	1900	2650 x 1890		14.0 18.0	-	
P15-CO120	vv			2			1100			2650 x 1890		1900	2650 x 1890				
P15-CO150	w			2.5			1000			2650 x 1890	4500	2050	2650 x 1890				150
P15-CO150	**			2.5	-		1100			2650 x 1890	4000	2000	2650 x 1890				100
P15-CO180	w			3			1000			2650 x 1890	4950	2500	2650 x 1890		22.0		
P15-CO180	**			3			1100			2650 x 1890			2650 x 1890				
	D			1	- 1200×2300	2300	1100	2100	Side		3900 4100	1380	- 2110 x 2760	2200	8.0	-	90
	D	17		1.6								1450			12.0		100
	D		1275	1.75						2110 x 2760	4150	1480			14.0	48	100
	D			2							4250	1900			16.0		
	D			2.5							4500	2050			20.0		150
	D			3							4950	2500			24.0		
	D2			1	1200×2300	2300	1100 2	2100	Side		3900	1380		2200	8.0	- *	
	D2	17		1.6						2110 x 2970	4100	1450	2110 x 2970		12.0		
	D2		1275	1.75							4150	1480			14.0		150
	D2			2							4250	1900			16.0		
	D2			2.5	-						4500	2050			20.0		
	D2			3							4950	2500			24.0		90
	D			1	- - 1400×2400	2300			Side		3900 4100	1380 1450	- - 2280 x 2860 -	2200	10.0 16.0		90
	D										4100	1450			18.0		100
	D	21	1600	1.75 2			1200	2100		2280 x 2860	4150	1400			20.0	48	150
	D			2.5							4250	2050			20.0	-	
				2.5							4500	2050			24.0		
	D2			3	-	2300	1200	2100	Side		3900	1380	2280 x 3070 220		10.0	- *	150
	D2 D2			1.6							4100	1450		2200	16.0		
	D2 D2			1.75						2280 x 3070	4150	1480			18.0		
	D2	21	1600	2	1400×2400 230						4250	1900			20.0		
	D2			2.5							4500	2050			24.0		
	D2			3							4950	2500			28.0		

W: Wide car D: Deep car D2: Front and rear opening door X: 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.

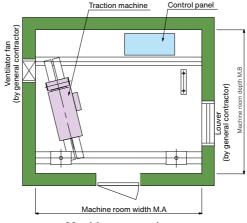
• The hoistway dimensions in chart are the minimum requirement.

• The hoistway structure wall must be 150mm thick or more.

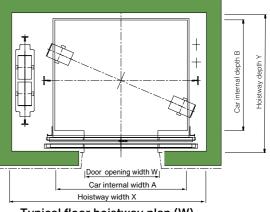
• Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.

• 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:

Memo

► 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).
- Finishing of walls and floors, etc., around entrances, after furnishing equipment related to landing entrances.
 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.
- 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 prevert the temperature from exceeding 40 $^\circ\mathrm{C}$ 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.



Global Network

A TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION Head Office: 72-34, Horikawa-cho, Saiwai-ku, Kawasaki 212-8585, Japan Factory: 1 Toshiba-cho, Fuchu City, Tokyo 183-8511

TOSHIBA ELEVATOR PRODUCTS CORPORATION Head Office: 1000, Hamada, Amiboshi Ward, Himeji City, Hyogo Prefecture



C TOSHIBA ELEVATOR (CHINA) CO., LTD. Head Office: No. 685 Wen Chuan Road, Baoshan District, Shanghai 201901, The People's Republic of China.

D CHEVALIER (HK) LIMITED Head Office: 22nd Floor, Chevalier Commercial Centre, 8 Wang Hoi Road, Kowloon Bay, Hong Kong

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CHEVALIER SINGAPORE HOLDINGS PTE. LTD. Head Office: 23 Genting Road #07-01/02 Chevalier House, Singapore 349481

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2

Head office / Manufacturing base Head office



Head Office: 8th Floor, Wisma Penang Garden, 42 Jalan Sultan Ahmad Shah, 10050 Penang, Malaysia. Factory: 2530, Lorong Perusahaan 10, Prai Industrial Estate, 13600 Prai, Province, Wellesley, Malaysia.

M S ELEVATORS ENGINEERING Sdn. Bhd. Head Office: 8th Floor, Wisma Penang Garden, 42 Jalan Sultan Ahmad Shah, 10050 Penang, Malaysia. KL Office: Wisma MS, No.15, Jalan 2/116 D, Kuchai Entrepreneurs' Park, Off Jalan Kuchai Lama, 58200 Kuala Lumpur, Malaysia.

G TOSHIBA JOHNSON ELEVATORS (INDIA) PVT. LTD. Head Office: 602, 6th Floor, C&B Square, Sangan Complex 127, Andheri Kurla Road. Andheri (East), Mumbai, 400059 India

Head Officer D. D. Head Officer D. He Head Office: P. O. Box 16733, Dubai, UAE

Toshiba Elevator (Vietnam) Limited Liability Company Head Office: No. 36, Street 96, Quarter 2, Thanh My Loi Ward, Thu Duc City, Ho Chi Minh City, Vietnam

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.

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[For more information]

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Toshiba Elevator and Building Systems Corporation Head office: 72-34, Horikawa-cho, Saiwai-ku, Kawasaki 212-8585, Japan

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

