

TOSHIBA

TOSHIBA COMPACT MACHINE ROOM ELEVATORS STANDARD PASSENGER ELEVATOR





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.

* Revised publication effective Sep. 2021

GK-F211(1)-2109-500-2109(TD)

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For GB standard

TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

HEE 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 specification	Range of application	
Passenger	$8\sim 26~{ m persons}$	
Rated load	$630\sim 2000~{ m kg}$	
Rated speed	$1.0 \sim 4.0 \text{ m/s}^{*1}$	

	4.0	
	3.5	
	3.0	
Rated	2.5	
peed (m/s)	2.0	
	1.75	
	1.5/1.6	
	1.0	
ated lo	630	
Туре		P8

Note1: Applicable range of rated speed 3.5 or 4.0 m/s are rated load 825 or 1050kg only. Note2: The above scope complies with GB7588:2003 standard.

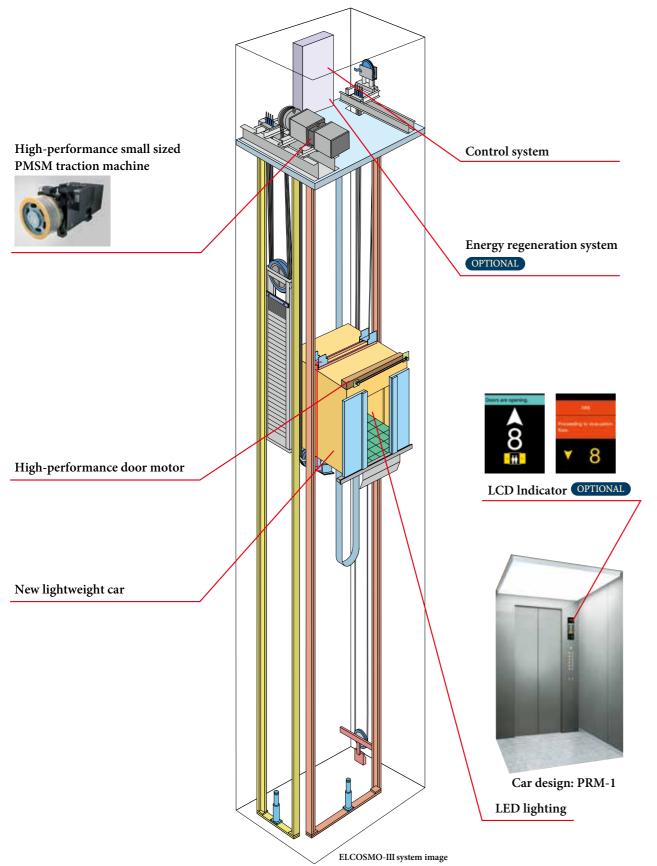
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3	P11	P14	P15	P17	P18	P21	P24	P26



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New Technology

High-performance Small Sized PMSM Traction Machine

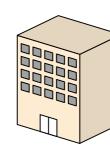
- ◆ Compact PMSM (Permanent Magnet Synchronous Motor) for space saving.
- ♦ Over 30% less power consumption (compared to conventional electric motor).
- Gearless traction without gear oil for low vibration, low noise and better environmental conservation.

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

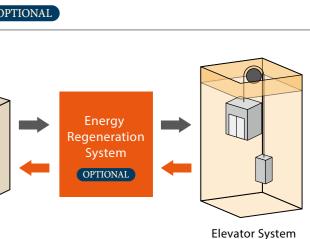
Use of Roller Guide OPTIONAL

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 OPTIONAL

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.

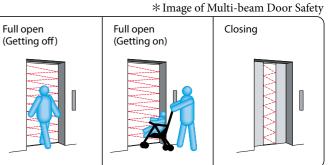
Ascending Car Overspeed Protection

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.

Multi-beam Door Safety OPTIONAL

The photoelectric cell detects passengers in the doorway and reopens closing doors.





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.)

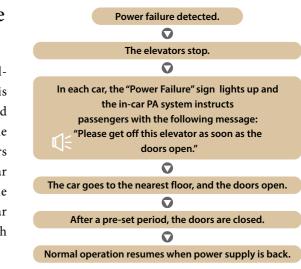
Earthquake Emergency Operation

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.

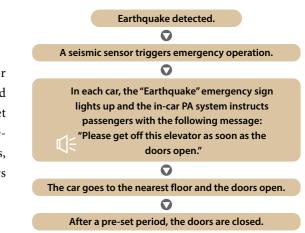
Fire Emergency Operation

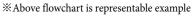
This emergency operation is automatically triggered in case of a fire, when a fire alarm button is actuated, or when a Fire/Smoke Detector detects an abnormality. All hall calls and floor selections are cancelled, passengers are informed of the emergency procedure with a "Fire" sign and a voice announcement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

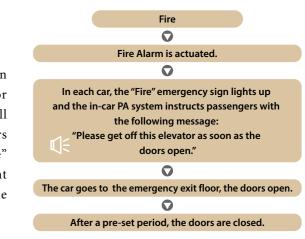
Safety Function











 $\ref{Above flowchart is representable example}$



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.



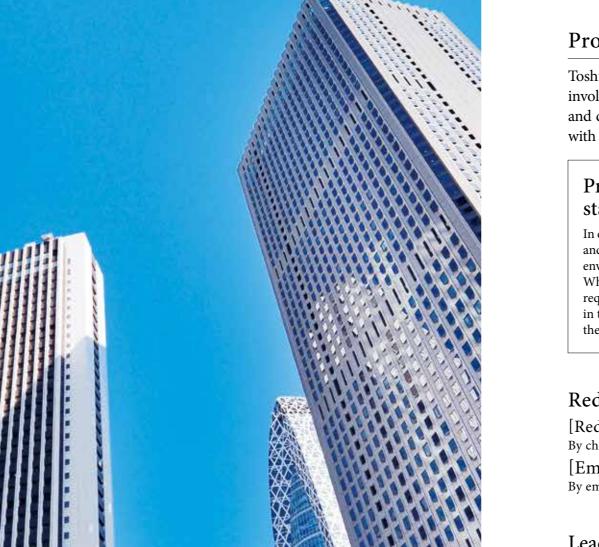
Products and functions adopted to reduce power consumption

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.



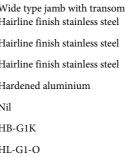
Hall Decoration Item Variation

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



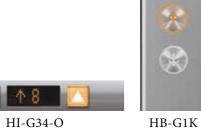
Hall design 7



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
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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







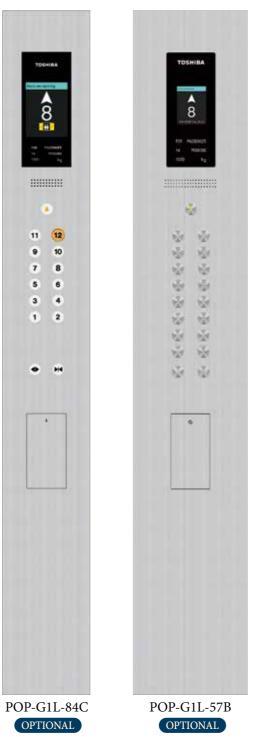
KB-3 (Orange light)

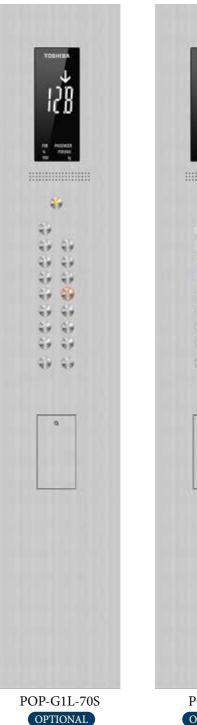
PRM-1



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)

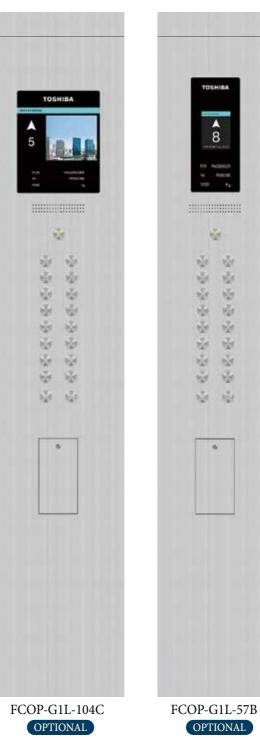
DLX-24

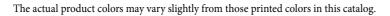
Indicator ors are op

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Car Operation Panel





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\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	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

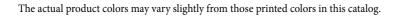


Car Operation Panel









Segment

Button



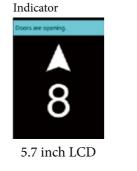
GS-5B-WT

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



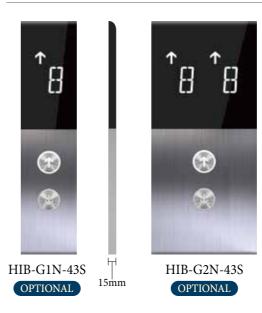
4.3inch LCD segment



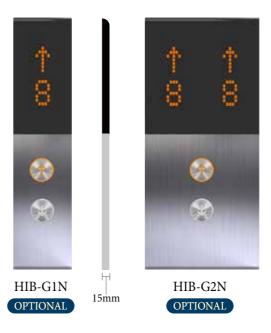


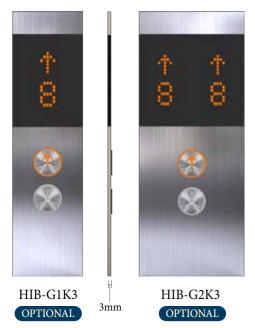
Hall Indicator Button

4.3 inch LCD segment



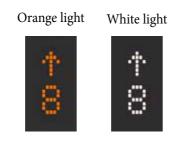
LED Dot Matrix





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

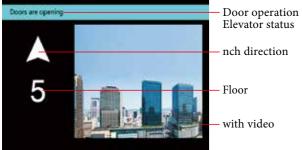
Car Position Indicator

Large LCD Indicator for Car Operation Panel OPTIONAL

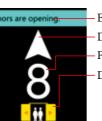
These 10.4 inch and 8.4 inch LCD indicators are capable of displaying in the elevator's various conditions (emergency operations, maintenance status) in large icons and letter in highly visible colors.

10.4 inch display for car operation panel

General car display (Without monitoring)



Elevator status nch direction

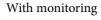


8.4 inch display for car operation panél

-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



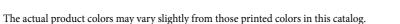


▲ With monitoring

▲ Fire emergency operation







With video



LED Dot matrix



Controlled status



Functions

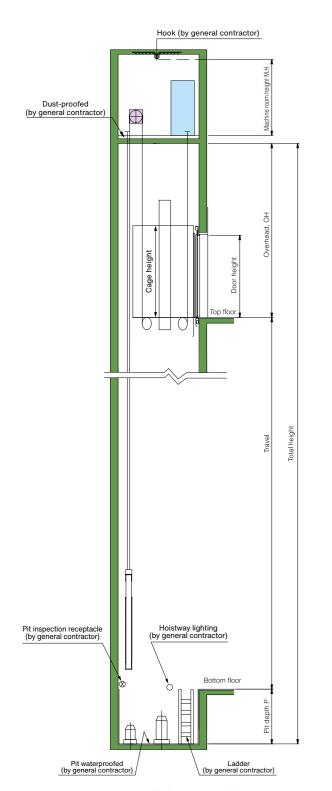
 \bigcirc : STANDARD \triangle : OPTIONAL

Functions	Notes		IONAL
Functions			
-	Simplex selective-collective fully automatic operation	Fully automatic operation by hall and car calls for single car	0
	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	
Operations	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	0
	Overload protection	The car overload buzzer will sound to prevent overloading and the doors will remain open	0
	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	0
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.	0
	Mechanical door safety	When the mechanical door safety device is touched by a passenger, the door will open	
	Multi-beam door safety sensor [Or light curtain door safety sensor]	When the multi-beam door safety device senses a passenger, the door will open	
	2 in 1 door safety [Multi-beam door safety + Mechanical door safety]	A combination of multi-beam door safety and mechanical door safety	0
0 m i	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.	

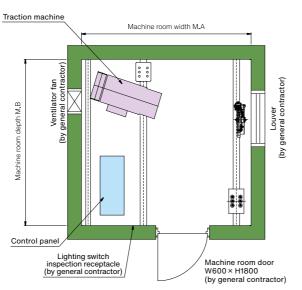
Functions	Notes	Descriptions	
	Service floor cut-off selection [Manual]	linstalling a switch or a timer on the supervisory panel, disables registration of car calls or hall calls for a basement floor's or an intermediate floors or intermediate floors thus engaging in non-stop (bypass) without servicing 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	0
	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	0
	Hall lantern	The hall lantern will light up when the lift arrived	
Service Functions	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	0
	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	0
	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	0
	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	0
	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	

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.

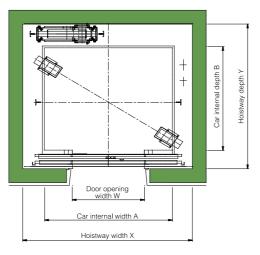
 \bigcirc : STANDARD \triangle : OPTIONAL



Hoistway section



Machine room plan



Hoistway plan (W)

Specifications

AXB 800 P8-CO60 w 1 900 800 1.6 P8-CO96 w 900 800 900 P8-CO105 w 8 630 1.75 1400×1100 2300 2100 Re 800 P8-CO120 2 900 800 P8-CO150 2.5 w 900 800 P11-CO60 w 1 900 800 P11-CO96 1.6 w/ 900 800 P11-CO105 W 11 825 1.75 1400×1350 2300 2100 Re 900 800 P11-CO120 W 2 900 800 2.5 P11-CO150 W 900 900 1000 P14-CO60 1 1100 900 P14-CO96 1.6 1000 1100 900 P14-CO105 W 14 1050 1.75 1600×1400 2300 1000 2100 Re 1100 900 P14-CO120 W 2 1000 1100 900 1000 P14-CO150 W 2.5 1100

W: Wide car

Note:

• The above table complies with GB7588:2003 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.

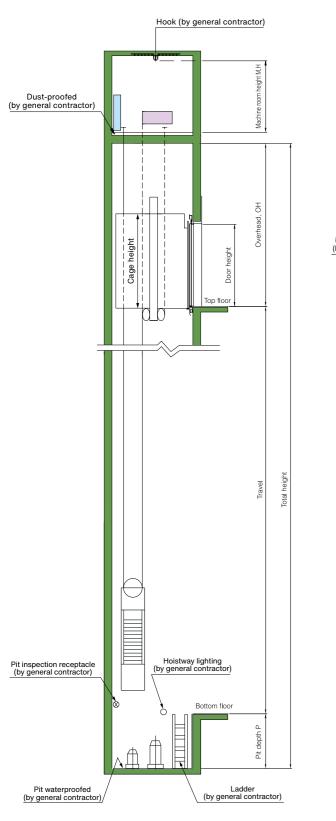
• Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.

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

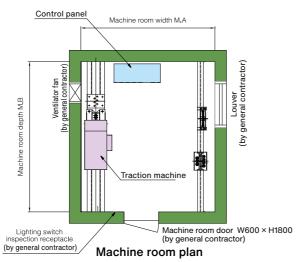
• If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor. • If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.

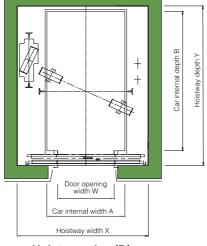
51

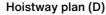
C/W	Hoistway	size(mr	n)			Motor Capacity	Max. Service	Max. Travel
	X×Y	ОН	Р	MA×MB	MH	(kW)	Stops(s)	(m)
	2000 x 1720 3700 1300			2000 x 1720				00
	2200 x 1720	3700	1300	$\begin{array}{ c c c c c c c } \hline \text{dimensions (mm)} & Capacity Service Stops(: S$		90		
	2000 x 1720	2000	1400					
	2200 x 1720	$ \begin{array}{ c c c c c c } \hline OH & P & MA \times MB & MH \\ \hline O & 3700 & 1300 & 2000 \times 1720 \\ \hline 0 & 3900 & 1400 & 2000 \times 1720 \\ \hline 0 & 3900 & 1400 & 2000 \times 1720 \\ \hline 0 & 3950 & 1450 & 2000 \times 1720 \\ \hline 0 & 4050 & 1650 & 2000 \times 1720 \\ \hline 0 & 4050 & 1650 & 2000 \times 1720 \\ \hline 0 & 4050 & 1650 & 2000 \times 1720 \\ \hline 0 & 4050 & 1650 & 2000 \times 1720 \\ \hline 0 & 4050 & 1650 & 2000 \times 1720 \\ \hline 0 & 4250 & 2100 & 2000 \times 1770 \\ \hline 0 & 3900 & 1400 & 2000 \times 1970 \\ \hline 0 & 3900 & 1400 & 2000 \times 1970 \\ \hline 0 & 3900 & 1450 & 2000 \times 1970 \\ \hline 0 & 3900 & 1450 & 2000 \times 1970 \\ \hline 0 & 3900 & 1650 & 2000 \times 1970 \\ \hline 0 & 4250 & 2100 & 2000 \times 1970 \\ \hline 0 & 4250 & 2100 & 2000 \times 1970 \\ \hline 0 & 4250 & 2100 & 2200 \times 1970 \\ \hline 0 & 4250 & 2100 & 2200 \times 1970 \\ \hline 0 & 4250 & 2100 & 2200 \times 1970 \\ \hline 0 & 4250 & 2100 & 2200 \times 1970 \\ \hline 0 & 3700 & 1300 & 2400 \times 2020 \\ \hline \end{array} $	5.8		100			
	2000 x 1720	2050	1450	2000 x 1720	0400	6.2	apacity Service Trave 3.6 90 5.8 40 6.3 40 7.2 100 9.0 125 9.0 90 4.7 90 7.5 40 9.5 11.8 6.0 90 9.7 100	100
Rear	2200 x 1720	3950	1450	2200 x 1720	2100	0.3	40	
	2000 x 1720	4050	1650	2000 x 1720		70		
	2200 x 1720	4050	1000	2200 x 1720		1.2		125
	2000 x 1720	4050	2100	2000 x 1720	$\begin{array}{ $	125		
	2200 x 1720	4250	2100	2200 x 1720		9.0		
	2000 x 1970	2700	1200	2000 x 1970		47		00
- Rear -	2200 x 1970	3700	1300	2200 x 1970		4.7		90
	2000 x 1970	2000	1400	2000 x 1970		7.5		
	2200 x 1970	3900	1400	2200 x 1970		7.5		100
	2200 x 1970 3900 1400 2200 x 1970 2000 x 1970 3950 1450 2000 x 1970 2200 x 1970 3950 1450 2000 x 1970 2000 x 1970 4050 1650 2000 x 1970	2100	0.2	40	100			
220 200	2200 x 1970	3930	1450	2200 x 1970	2100	0.5	-10	
	2000 x 1970	4050	1650	2000 x 1970		0.5		
	2200 x 1970	4030	1030	2200 x 1970		9.0		105
	2000 x 1970	4250	2100	2000 x 1970		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
	2200 x 1970	4250	2100	2200 x 1970		11.0		
	2200 x 2020			2200 x 2020				
	2400 x 2020	3700	1300	2400 x 2020		6.0		90
	2600 x 2020			2600 x 2020				
	2200 x 2020			2200 x 2020				
	2400 x 2020	3900	1400	2400 x 2020		9.7		
	2600 x 2020			2600 x 2020				
	2200 x 2020			2200 x 2020				100
Rear	2400 x 2020	3950	1450	2400 x 2020	2100	10.5	40	
	2600 x 2020			2600 x 2020				
	2200 x 2020			2200 x 2020				
	2400 x 2020	4050	1650	2400 x 2020		12.0		
	2400 x 2020 4050 1650 2400	2600 x 2020				125		
	2200 x 2020			2200 x 2020				125
	2400 x 2020	4250	2100	2400 x 2020		15.0		
	2600 x 2020			2600 x 2020) (m) 90 100 125 90 100 125 90 100

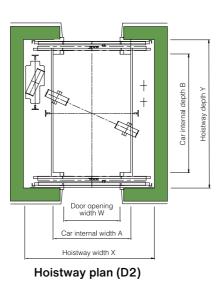


Hoistway section









Specifications

Туре		Nos.of	Capacity	Speed	Cage size Internal(mm)			ntrance m)	C/W	Hoistway size(mm)			Machine ro dimensions	oom (mm)	Motor Capacity	Max. Service	Max. Travel
.,po		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	1300	1940 x 1760		3.6		90
10-0000				'	-		900			2140 x 1760	5700	1300	2140 x 1760		5.0		30
P8-CO96	D			1.6			800			1940 x 1760	3900	1400	1940 x 1760		5.8		
							900			2140 x 1760			2140 x 1760				100
P8-CO105	D	8	630	1.75	1100×1400	2300	800 900	2100	Side	1940 x 1760 2140 x 1760	3950	1450	1940 x 1760 2140 x 1760	2100	6.3	40	
							800			1940 x 1760			1940 x 1760				
P8-CO120	D			2			900			2140 x 1760	4050	1650	2140 x 1760		7.2		105
D0 00450				0.5			800			1940 x 1760	4250	2100	1940 x 1760		9.0		125
P8-CO150	D			2.5			900			2140 x 1760	4250	2100	2140 x 1760		9.0		
P11-CO60	D						800			1950 x 2060	3700 1300	1950 x 2060			40		
1110000				1			900			2140 x 2060		1300	2140 x 2060		4.7		90
P11-CO60	D2						800			1950 x 2170			1950 x 2170		7.5	80	
		-					900 800			2140 x 2170			2140 x 2170				
P11-CO96	D						900			1950 x 2060 2140 x 2060			1950 x 2060 2140 x 2060			40	
				1.6			800			1950 x 2170	3900	1400	1950 x 2170				
P11-CO96	D2						900			2140 x 2170			2140 x 2170			80	
D44 00405							800			1950 x 2060			1950 x 2060			40	100
P11-CO105	D	11	825	1.75	1100×1700	2300	900	2100	Side	2140 x 2060	4050 16	1450	2140 x 2060	2100	8.3	40	
P11-CO105	20	-	025			80 90 80 90 80 90 80 80 90 90	800	2100		1950 x 2170			1950 x 2170		0.0	80	
111-00103	02						900			2140 x 2170			2140 x 2170			00	
P11-CO120	D						800	-		1950 x 2060			1950 x 2060			40	
				2			800			2140 x 2060 1950 x 2170		1650	2140 x 2060 1950 x 2170		9.5		
P11-CO120	D2						900			2140 x 2170			2140 x 2170			80	125
							800			1950 x 2060			1950 x 2060				
P11-CO150	D						900			2140 x 2060		2100	2140 x 2060			40 80	
D44 00450	-			2.5			800			1950 x 2170		2100	1950 x 2170		11.8		
P11-CO150	D2						900			2140 x 2170			2140 x 2170				
P14-CO60	D						800			1950 x 2460			1950 x 2460			40 80	- 90
1 14 0000			1	1			900			2140 x 2460	3700	1300	2140 x 2460		6.0		
P14-CO60	D2						800			1950 x 2570			1950 x 2570				
							900 800			2140 x 2570 1950 x 2460			2140 x 2570 1950 x 2460				
P14-CO96	D						900			2140 x 2460			2140 x 2460			40	
				1.6			800			1950 x 2570	3900	1400	1950 x 2570		9.7		
P14-CO96	D2						900			2140 x 2570			2140 x 2570			80	
P14-CO105	D						800			1950 x 2460			1950 x 2460			40	100
1 14-00103		14	1050	1.75	1100×2100	2300	900	2100	Side	2140 x 2460	3950	1450	2140 x 2460	2100	10.5	-10	
P14-CO105	D2						800			1950 x 2570			1950 x 2570			80	
					.		900			2140 x 2570			2140 x 2570				
P14-CO120	D	-					800 900			1950 x 2460 2140 x 2460			1950 x 2460 2140 x 2460			40	
				2			800			1950 x 2570	4050	1650	1950 x 2570		12.0		
P14-CO120	D2						900			2140 x 2570			2140 x 2570			80	
							800			1950 x 2460			1950 x 2460			40	125
P14-CO150	D			2.5			900			2140 x 2460	4250	2100	2140 x 2460		15.0	40	
P14-CO150	20			2.0			800			1950 x 2570	4250	2100	1950 x 2570		15.0	80	1
1 14-00100							900			2140 x 2570			2140 x 2570				

Note:

• The above table complies with GB7588:2003 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.

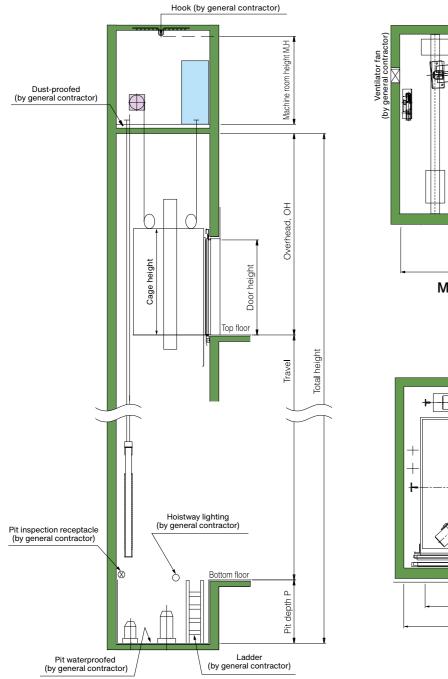
• The hoistway structure wall must be 150mm thick or more.

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

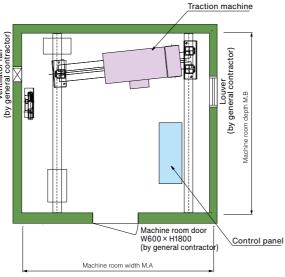
- OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.
- If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.

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

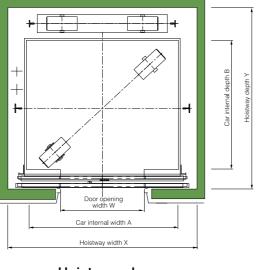
Specifications



Hoistway section



Machine room plan



Hoistway plan

Туре		Nos.of	Capacity	Speed	Cage s Internal(ntrance m)	C/W	Hoistway	v size(m	m)	Machine re dimensions		Motor Capacity	Max. Service	Max. Travel
		Person	(kg) -	(m/s)	A x B	Height	Width	Height		Χ×Υ	OH	Р	MA×MB	MH	(kW)	Stops(s)	(m)
D44 00400			1050	0			800		_	2100 x 2070	4050	0500	2100 x 2070		20.0	40	450
P14-CO180	w	14	1050	3	1600×1400	2300	900	2100	Rear	2150 x 2070	4950	2500	2150 x 2070	2200	20.0	48	150
D45 0000							1000			2350 x 2170	3900	1380	2350 x 2170		7		00
P15-CO60	W			1			1100			2550 x 2170	3900	1300	2550 x 2170		1		90
P15-CO96	w			1.6			1000			2350 x 2170	4050	1450	2350 x 2170		12		100
P15-C090	~~			1.0			1100			2550 x 2170	4030	1430	2550 x 2170		12	-	
P15-CO105	w			1.75			1000		Rear	2350 x 2170	4100	1450	2350 x 2170		12		
115-00105	**	15	1150	1.75	1800×1500	2300	1100	2100		2550 x 2170	4100	1400	2550 x 2170	2100		48	
P15-CO120	w			2			1000			2350 x 2170	4200	1600	2350 x 2170		14		
							1100			2550 x 2170			2550 x 2170				
P15-CO150	w			2.5			1000			2350 x 2170	4500	2000	2350 x 2170		18		150
							1100			2550 x 2170			2550 x 2170				.00
P15-CO180	w			3			1000	4		2350 x 2170	4950	2500	2350 x 2170		22		
							1100			2550 x 2170			2550 x 2170				
P17-CO60	W			1							3900	1380			8.0		90
P17-CO96	W			1.6							4050 4100 4200 4500	1450			12.0		100
P17-CO105	W	17	1275	1.75 2	2000×1400	2300	1100	2100	Rear	2550 x 2070		1480	2550 x 2070	2100	14.0	48	
P17-CO120	W	-		2.5	-							1600			16.0 20.0		450
P17-CO150 P17-CO180	W	-									4950	2000 2500			20.0		150
P17-C0180 P18-C060	W			3							3900	1380			24.0 8.0		90
P18-C060 P18-C096	W	-		1.6							4050	1450	2550 x 2170		0.0 14.0		90
P18-CO90	W			1.75							4100	1480			14.0		100
P18-C0103	W	18	1350	2	2000×1500	2300	1100	2100	Rear	2550 x 2170	4200	1600		2100	14.0	48	
P18-CO150	w			2.5							4500	2000			20.0		150
P18-CO180	W			3							4950	2500			24.0		100
1 10 00 100							1100			2550 x 2370	-1000	2000	2550 x 2370		20		
P21-CO60	W			1			1200			2750 x 2370	3900	1380	2750 x 2370		10.0		90
							1100			2550 x 2370			2550 x 2370				
P21-CO96	W			1.6			1200			2750 x 2370	4050 1450	1450	2750 x 2370		16.0		
				1.75			1100			2550 x 2370			2550 x 2370			- 48	
P21-CO105	W						1200		_	2750 x 2370		1450	2750 x 2370		18.0		
		21	1600		2000×1700	2300	1100	2100	Rear	2550 x 2370			2550 x 2370	2100			
P21-CO120	w			2			1200	1		2750 x 2370	4200	1600	2750 x 2370		20.0		
P21-CO150	14/	1		2.5	1		1100	1		2550 x 2370	4500	0000	2550 x 2370	1	04.0		
P21-C0150	w			2.5			1200			2750 x 2370	4500	2000	2750 x 2370		24.0		150
P21-CO180	w	1		3	1		1100	1		2550 x 2370	4950	2500	2550 x 2370		28.0		
F21-C0100	vv			5			1200			2750 x 2370	4950	2500	2750 x 2370		20.0		
P24-CO60	W			1							3900	1380			12.0		90
P24-CO96	W			1.6							4050	1450			18.0		100
P24-CO105	W	24	1800	1.75	2100×1750	2300	1200	2100	Rear	2750 x 2420	4100	1480	2750 x 2420	2100	20.0	48	100
P24-CO120	W	-4	1000	2		2000	1200	2100	i (Gai	2100 x 2420	4200	1600	2100 1 2720	2100	22.0	- UF	
P24-CO150	W			2.5							4500	2000			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							4050	1450			20.0		100
P26-CO105	W	26	2000	1.75	2100×1950	2300	1200	2100	Rear	2750 x 2620		1480	2750 x 2620	2100	22.0	48	
P26-CO120	W			2							4200	1600			24.0		
P26-C0150	W			2.5							4500	2000			30.0		150
P26-CO180	W			3							4950	2500			36.0		

W: Wide car

Note:

• The above table complies with GB7588:2003 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.

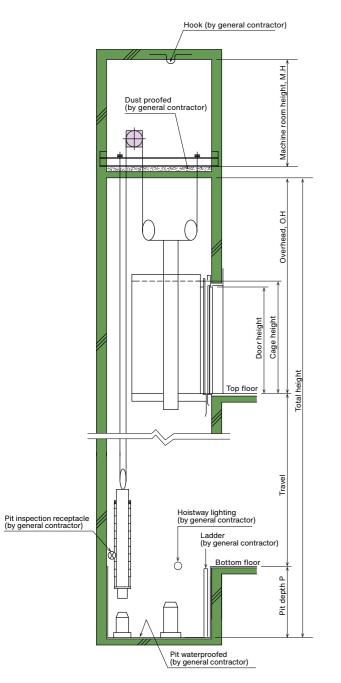
• The hoistway structure wall must be 150mm thick or more.

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

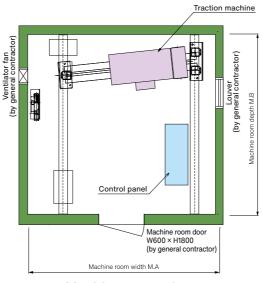
• OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.

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

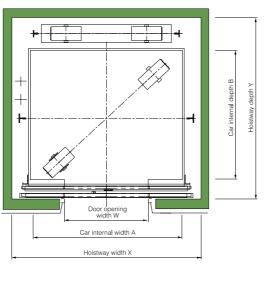
• If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.



Hoistway section



Machine room plan



Hoistway plan

Specifications

Туре		Nos.of Person	Capacity		Cage size Internal(mm)		Door entrance (mm)		C/W	Hoistway size(mm)			Machine n dimensions	Motor Capacity		Max. Travel	
		Feison	(kg)	(m/s)	AxB	Height	Width	Height	eight	X×Υ	OH	Р	MA×MB	MH	(kW)	Stops(s)	(m)
P11-CO210	w	11		3.5			800	2100	- Rear	1900 x 2150	5950	3250	1900 x 2150	0400	17.1	- 64	200
P11-C0210			825	3.5	1400×1350	2300	900			2100 x 2150	5950	3230	2100 x 2150	2100			
P11-CO240	w		020	4	- 1400. 1000	2000	800	2100		1900 x 2150	6500	3850	1900 x 2150	2100	19.5		
F11-C0240	vv						900	2100		2100 x 2150	0500	3650	2100 x 2150				
			1050	3.5	- 1600×1400	2300	900			2100 x 2200	5950	3250	2100 x 2200	2100	21.8	64	200
P14-CO210	W						1000	2100		2300 x 2200			2300 x 2200				
		14					1100		Rear	2500 x 2200			2500 x 2200				
	w	14	1050				900		Rear	2100 x 2200		0 3850	2100 x 2200				
P14-CO240				4			1000	2100		2300 x 2200	6500		2300 x 2200	2100	24.9		
							1100			2500 x 2200			2500 x 2200				

W: Wide car

Note:

• The above table complies with GB7588:2003 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.

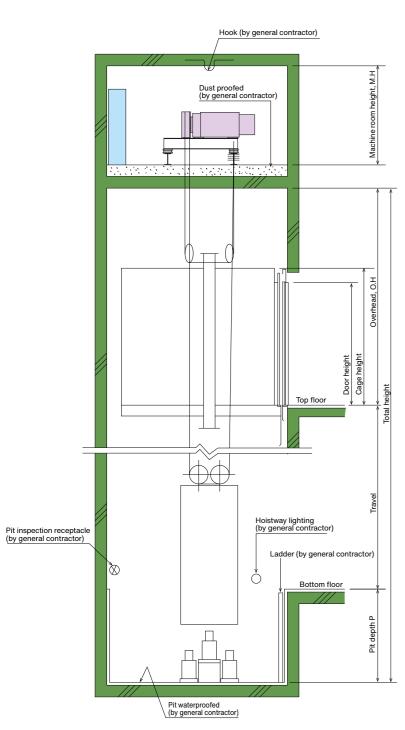
• The hoistway structure wall must be 150mm thick or more.

• Piping, 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.

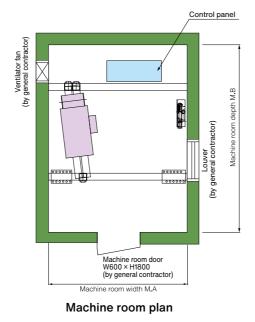
• If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our distributor.

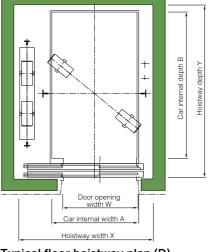
• If the location of power source panel, control panel and electric power supply are changed. Please consult our distributor.

Specifications

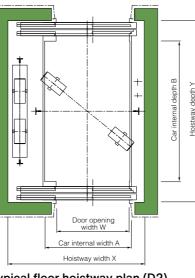


Hoistway section





Typical floor hoistway plan (D)



Typical floor hoistway plan (D2)

Туре		Nos.of	Capacity	Speed	Cage s Internal(entrance nm)	C/W	Hoistway	v size(m	m)	Machine n dimensions		Motor	Max. Service	Max. Travel
1,960		Person	(kg)	(m/s)	AxB	Height	Width	, Height		Х×Ү	OH	Р	MA×MB	MH	Capacity (kW)	Stops(s)	(m)
D14 00400			4050		40004400	0000	800	0400	0.1	2450 x 1850	4050	0500	2450 x 1850		20.0	40	450
P14-CO180	w	14	1050	3	1600×1400	2300	900	2100	Side	2450 x 1850	4950	2500	2450 x 1850	2200	20.0	48	150
P15-CO60	w			1			900			2650 x 1890	3900	1380	2650 x 1890		7		90
P15-CO60	vv			1			1000			2650 x 1890	3900	1360	2650 x 1890		1		90
P15-CO96	w	15		1.6			900			2650 x 1890	4050	1450	2650 x 1890		12		
P15-CO96	**			1.0			1000			2650 x 1890	4030	1430	2650 x 1890		12	_	100
P15-CO105	w			1.75			900		Side	2650 x 1890	4100	1480	2650 x 1890		12		100
P15-CO105	**		1150	1.70	1800×1500	2300	1000	2100		2650 x 1890	4100	1400	2650 x 1890	2200	12	48	
P15-CO120	w			2			900	.		2650 x 1890	4200	1600	2650 x 1890		14 18		
P15-CO120							1000	.		2650 x 1890	1200		2650 x 1890				
P15-CO150	w			2.5			900			2650 x 1890	4500	2000	2650 x 1890	-			150
P15-CO150							1000			2650 x 1890			2650 x 1890				
P15-CO180	w			3			900			2650 x 1890	4950	2500	2650 x 1890		22		
P15-CO180	-						1000			2650 x 1890		1000	2650 x 1890		0.0		
P17-2S60	D			1 1.6	-						3900 4050	1380	-		8.0		90
P17-2S96 P17-2S105	D			-							4050	1450			12.0 14.0		100
P17-25105 P17-25120	D	17	1275	1.75 2	1200×2300	2300	1100	2100	Side	2110 x 2760	4100	1480 1600	2110 x 2760	2200	14.0	48	
P17-2S120 P17-2S150	D			2.5							4500	2000	-		20.0		150
P17-25150 P17-25180	D			3							4950	2500	-		20.0		150
P17-2S60	D2			1							3900	1380			8.0		
P17-2S96	D2			1.6				2100	Side		4050	1450	2110 x 2870	2200	12.0		
P17-2S105	D2			1.75	- 1200×2200					2110 x 2870 -	4100	1480			14.0	*	
P17-2S120	D2	17	1275	2		2300	300 1100				4200	1600			16.0		150
P17-2S150	D2			2.5							4500	2000			20.0		
P17-2S180	D2			3							4950	2500	1		24.0		
P21-2S60	D			1							3900	1380			10.0		90
P21-2S96	D	1		1.6							4050	1450	1		16.0		400
P21-2S105	D	21	1600	1.75	1400×2400	2300	1200	2100	Side	00000000	4100	1480	00000000	2200	18.0	48	100
P21-2S120	D	21	1000	2	1400^2400	2300	1200	2100	Side	2280 x 2860	4200	1600	2280 x 2860	2200	20.0	40	
P21-2S150	D			2.5	1						4500	2000	1		24.0		150
P21-2S180	D			3]						4950	2500	1		28.0		
P21-2S60	D2			1							3900	1380			10.0		
P21-2S96	D2			1.6							4050	1450			16.0		
P21-2S105	D2	21	1600	1.75	- 1400×2300 2300	2300	1200	2100	Side	2280 x 2970	4100	1480	2280 x 2970	2200	18.0	*	150
P21-2S120	D2			2			.200		0.00	2200 x 2010	4200	1600			20.0		
P21-2S150	D2			2.5							4500	2000]		24.0		
P21-2S180	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 GB7588:2003 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.

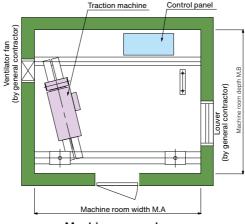
• The hoistway structure wall must be 150mm thick or more.

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

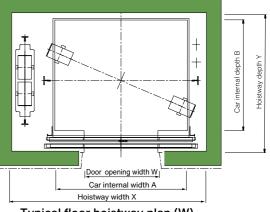
• OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.

• 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

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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.

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[For more information]

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