

Nr.

## TOSHIBA

Toshiba Machine-room-less Elevators Standard Passenger Elevator

SPACEL-III

### **3rd Edition**

#### For Indian standard

#### \* Revised publication effective Jun. 2023

Observance of relevant laws / regulations are required.
 Bead 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.

For Indian standard

### TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

# THE SOLUTIONS

#### COMPANY SOLUTIONS

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

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

## CONCEPT of SPACEL- ${\rm I\hspace{-0.1em}I}{\rm I}$

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

#### Product Line-up

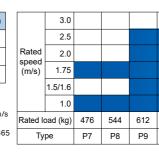
Expanded the applicable speed of the SPACEL-III. We can comply with various needs such as building use, layout design, etc.

 
 Scope of specification
 Range of application

 Passenger
 9 ~ 29 persons

 Rated load
 612 ~ 1972 kg

 Rated speed
 1.0 ~ 3.0 m/s



Note1: Applicable range of rated speed 3.0m/s are rated load 1156kg or more. Note2: The above scope complies with IS14665 standard.

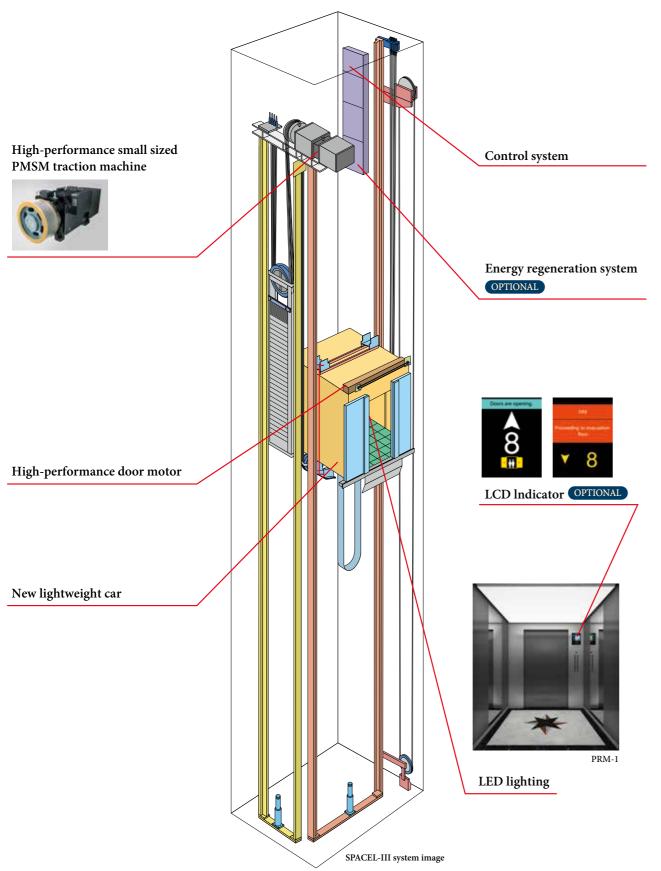
	SP			- TI	Τ			
748	952	1156	1224	1292	1496	1564	1700	1972
P11	P14	P17	P18	P19	P22	P23	P25	P29



#### Contents

#### The Solutions

The solutions	
Company Solutions	
Concept of ELCOSMO-III	P.2
Technology	
New Technology	P.3
Safety Function	
Energy Saving & Environment	P.9
Expansion of variations	
in car ceiling design	P.13
Car Design	
OFFICE ·······] RESIDENCE ·······]	P.15
RESIDENCE	P.17
HOTEL]	
SHOP]	P.21
Hall Design	
Hall Decoration Item Variation	P.23
Operation Systems	P.31
Functions	P.49
Hoistway Layout/	
Specifications	P.51
Works by Others	P.59
Global Network	P.61
	ć



## **New Technology**

## High-performance Small Sized PMSM Traction Machine

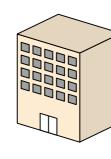
- ◆ Compact PMSM (Permanent Magnet Synchronous Motor) for space saving.
- ♦ Over 30% less power consumption (compared to conventional electric motor).
- Gearless traction without gear oil for low vibration, low noise and better environmental conservation.

## 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 952kg, 1.75m/s, 12-hour operation per day, 25 days per month).



Building

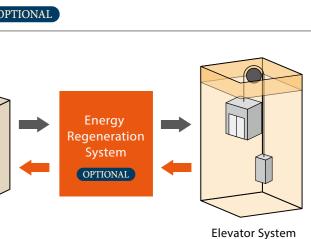
### Use of Roller Guide OPTIONAL

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.

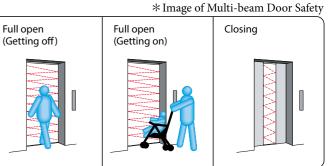
### Ascending Car Overspeed Protection

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

#### Multi-beam Door Safety OPTIONAL

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





## **Safety Function**

#### Automatic Landing in Power Failure

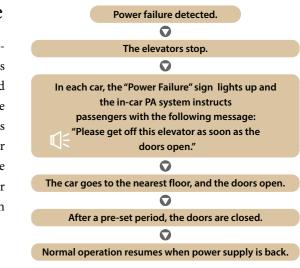
In case of a power failure, backup lamps are automatically lighted up in the cars, while the system's operation is switched to the elevator system's own battery powered inverter. Cars stranded between floors are taken to the nearest floor; otherwise, doors are opened and passengers are let out. The doors 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

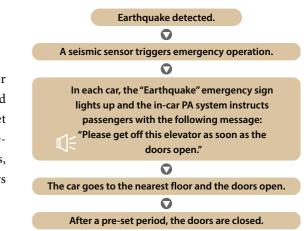
When the system's seismic sensor installed in the elevator shaft detects an S-wave (the secondary seismic wave and the main shock of an earthquake) that exceeds the pre-set threshold, the system takes control with emergency procedures. "Earthquake" emergency signs lighted up in all cars, all cars are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

# Fire Emergency Operation

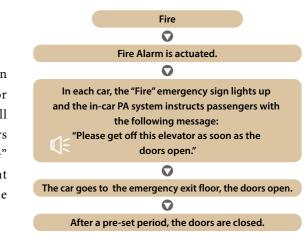
This emergency operation is automatically triggered in case of a fire, when a fire alarm button is actuated, or when a Fire/Smoke Detector detects an abnormality. All hall calls and floor selections are cancelled, passengers are informed of the emergency procedure with a "Fire" sign and a voice announcement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



 $\% {\rm Above}$  flow chart is representable example



%Above flowchart is representable example



%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)



PRM-1

# standards for products environment. 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.

## **Energy Saving & Environment**

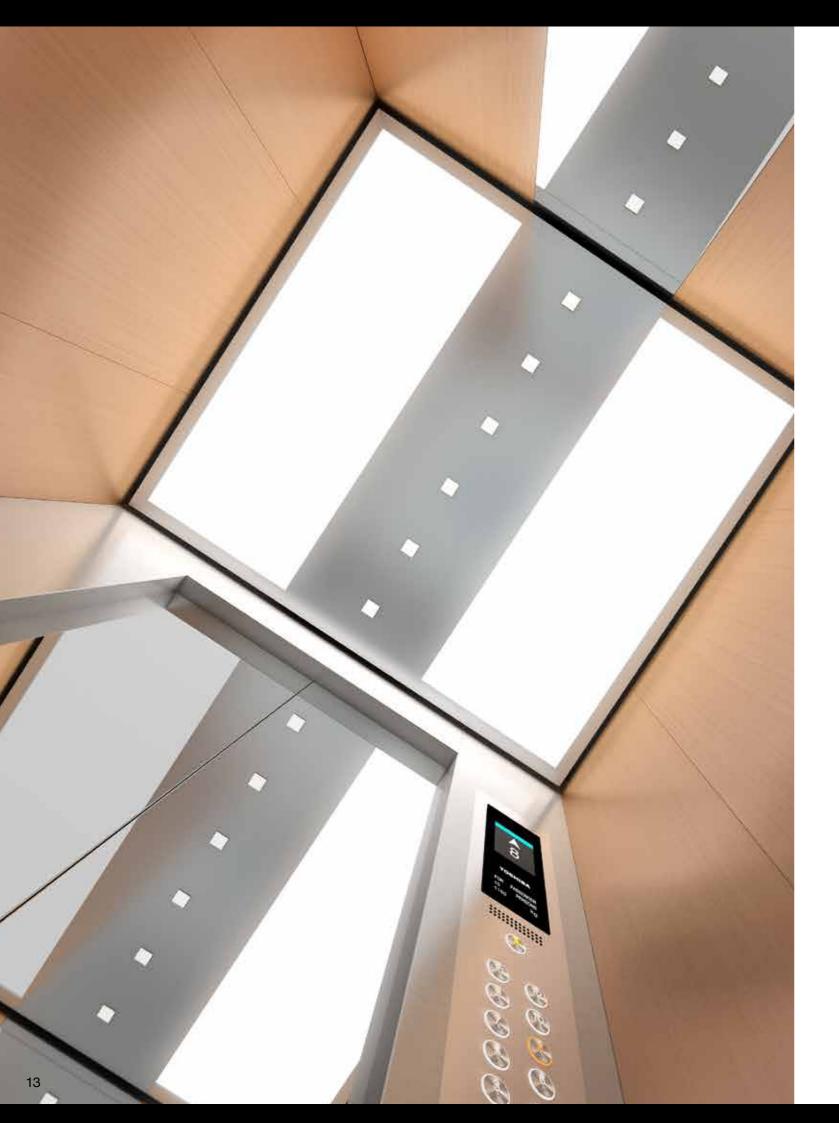
#### Providing environmentally conscious products

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

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

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



## **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.





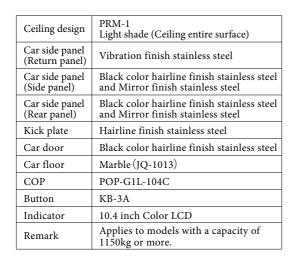
## OPTIONAL PRM-1

Front view



Back view





#### 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-27**

#### Front view



Front side view



Ceiling design	DLX-27 Hairline finish stainless steel (Central part: Mirror finish stainless steel)
Car side panel (Return panel)	Hairline finish stainless steel
Car side panel (Side panel)	Hairline finish stainless steel
Car side panel (Rear panel)	Hairline finish stainless steel
Kick plate	Nil
Car door	Hairline finish stainless steel
Car floor	Vinyl tile (MID809)
СОР	POP-G1NL
Button	GS-6A-BT
Indicator	LED segment
НСОР	HCOP-G1D (Button: UB-1)

#### 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-31**

#### Front view



Back view



Ceiling design	DLX-31 Hairline finish stainless steel
Car side panel (Return panel)	Black color mirorr finish stainless steel
Car side panel (Side panel)	Black color mirorr finish stainless steel and Mirror etching finish stainless steel (DZ-008)
Car side panel (Rear panel)	Black color mirorr finish stainless steel and Mirror etching finish stainless steel (DZ-008)
Kick plate	Nil
Car door	Mirror etching finish stainless steel (DZ-008)
Car floor	Marble (JQ-1012)
СОР	POP-G1L-57B
Indicator	5.7 inch Color 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 view



Back view



Ceiling design	DLX-22 Hairline finish stainless steel
Car side panel (Return panel)	Vibration finish stainless steel and Mirror 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
Kick plate	Nil
Car door	Mirror finish stainless steel
Car floor	Marble (JQ-1013)
СОР	POP-G1L-57B
Button	KB-7B
Indicator	5.7 inch Color LCD

### 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. Please consult our local distributor before adoption about the material and the color.









## 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 inclined type Vibration finish stainless steel
Hall Transon	Vibration finish stainless steel
Hall Door	Vibration finish stainless steel
Hall Indicator / Hall Button	HIB-G1L-43B
Button	KB-1A
Hall Lantern	HL-G1



HIB-G1L-43B

8

5



Hall design 5



Hall design 6 STANDARD



Hall design 7



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 2 OPTIONAL

Hall jamb	Wide inclined type Mirror finish stainless steel
Hall Door	Mirror etching finish stainless steel $(DZ-018)$
Hall Indicator	HI-G34-O
Hall Button	HB-G1K
Button	KB-1B













## Hall design 3 OPTIONAL

Hall jamb	Wide inclined type Hairline finish stainless steel
Hall Door	Hairline finish stainless steel
Hall Indicator	HI-G1
Hall Button	HB-G1
Button	GS-3LB
Other	Hall Emergency Operationg Panel











HI-G1

## Hall design 4 OPTIONAL

Hall Jamb	Wide inclined type Hairline finish stain
Hall Door	Painted steel panel (
Hall Indicator / Hall Button	HIB-G1NL-O
Button	GS-7B-B

nless steel l (77GS)

^ 8 3 2 HIB-G1NL-O







Hall Jamb	Narow type Hairline finish stainless steel
Hall Door	Hairline etching finish stainless steel (DZ-007)
Hall Indicator/ Hall Button	HIB-G1N-O
Button	NB-1B







HIB-G1N-O

## Hall design 6 STANDARD

Hall Jamb	Narow type Painted steel p
Hall Door	Painted steel p
Hall Indicator / Hall Button	HIB-G1NL-L
Button	GS-7A-BT

panel (62YS) panel (62YS) -0



HIB-G1NL-L-O

8

+ 00



## Hall design 7 OPTIONAL

Hall jamb	Wide inclined type Hairline finish stainless steel
Hall Door	Hairline finish stainless steel
Hall Indicator	HI-G1L-57B
Hall Button	HB-G1K
Button	KB-7A



HB-G1K





HI-G1L-57B

# OPERATION SYSTEMS

8

9999999

8

TOSHIBA

FOR PASSENGER 15 PERSONS 1150 kg

•

0 0

31



## Car Operation Panel : G1NL series

ℜNote: Applicable to Wide Car type models



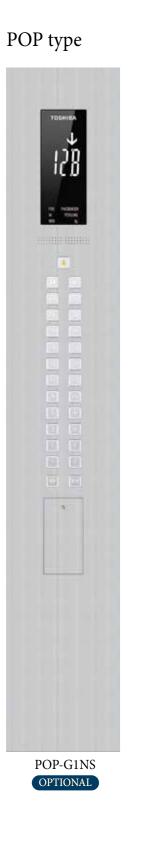
Button Line-up			
GS-5-B	GS-5A-B	GS-5B-B	
$(\uparrow)$		1	
GS-5-BT	GS-5A-BT	GS-5B-BT	
$(\uparrow)$		1	
GS-5-W	GS-5A-W	GS-5B-W	
	$\langle \rangle$		
GS-5-WT	GS-5A-WT	GS-5B-WT	
		1	
GS-6-B	GS-6A-B	GS-6B-B	
Ŷ	Ť	4	
GS-6-BT	GS-6A-BT	GS-6B-BT	
Ŷ	1	1	
GS-6-W	GS-6A-W	GS-6B-W	
R		<b>*</b>	
GS-6-WT	GS-6A-WT	GS-6B-WT	
*		*	
GS-7-B	GS-7A-B	GS-7B-B	
Ŧ		*	
GS-7-BT	GS-7A-BT	GS-7B-BT	
Ŧ		4	
GS-7-W	GS-7A-W	GS-7B-W	
<b>(</b>			
GS-7-WT	GS-7A-WT	GS-7B-WT	
3			
UB-3	UB-3A	UB-3B	
$\uparrow$	$\bigcirc$	$\uparrow$	

#### Button Line-up

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

## Car Operation Panel : G1NS series & Hall Indicator Button : G1NL series

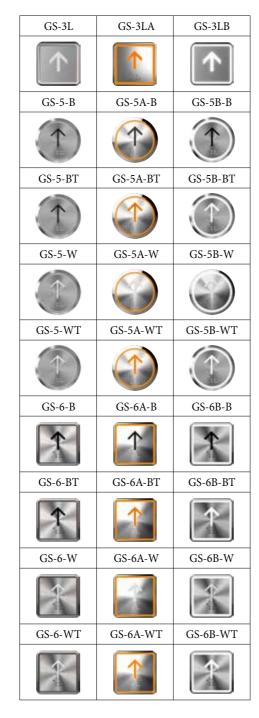
\*Note: Applicable to Wide Car type models



# FCOP type 128 4

FCOP-G1NS OPTIONAL

#### Button Line-up

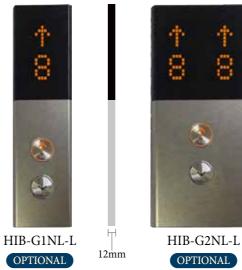


## LED Segment



## LED Dot Matrix

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



#### Button Line-up

	1	
GS-5-B	GS-5A-B	GS-5B-B
$(\uparrow)$		1
GS-5-BT	GS-5A-BT	GS-5B-BT
$(\uparrow)$		1
GS-5-W	GS-5A-W	GS-5B-W
GS-5-WT	GS-5A-WT	GS-5B-WT
		$\textcircled{\uparrow}$
GS-6-B	GS-6A-B	GS-6B-B
1	Ŷ	1
GS-6-BT	GS-6A-BT	GS-6B-BT
Ŷ	1	1
GS-6-W	GS-6A-W	GS-6B-W
×		R
GS-6-WT	GS-6A-WT	GS-6B-WT
*		(†
GS-7-B	GS-7A-B	GS-7B-B
Ŧ		Ŧ
GS-7-BT	GS-7A-BT	GS-7B-BT
Ŧ		P
GS-7-W	GS-7A-W	GS-7B-W
3		
GS-7-WT	GS-7A-WT	GS-7B-WT
3		1
UB-3	UB-3A	UB-3B
$\uparrow$		$\uparrow$

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

## Car Operation Panel : G1L series

XNote: Applicable to Wide Car type models



37

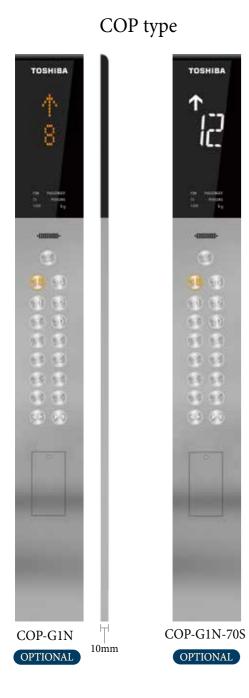
-B	GS-5A-B	GS-5B-B
		$\textcircled{\uparrow}$
BT	GS-5A-BT	GS-5B-BT
W	GS-5A-W	GS-5B-W
WT	GS-5A-WT	GS-5B-WT
-B	GS-6A-B	GS-6B-B
	Ť	1
BT	GS-6A-BT	GS-6B-BT
	1	Ŷ
W	GS-6A-W	GS-6B-W
		×
WT	GS-6A-WT	GS-6B-WT
	1	<b>A</b>
1	KB-1A	
1	KD-1A	KB-1B

1	KB-1A	KB-1B
	2	2
2	KB-2A	KB-2B
	2	2
3	KB-3A	KB-3B
	2	2
4	KB-4A	KB-4B
	2	2
7	KB-7A	KB-7B
	3	
8	KB-8A	KB-8B
	2	2

GS-7-B	GS-7A-B	GS-7B-B
×.		Ŧ
GS-7-BT	GS-7A-BT	GS-7B-BT
×		\$
GS-7-W	GS-7A-W	GS-7B-W
8		1
GS-7-WT	GS-7A-WT	GS-7B-WT
3		1
NB-1	NB-1A	NB-1B
		$(\hat{T})$
NB-2	NB-2A	NB-2B
X		<b>P</b>
UB-1	UB-1A	UB-1B
2	2	2
UB-2	UB-2A	UB-2B
2	2	2
UB-3	UB-3A	UB-3B
$\uparrow$	$(\uparrow)$	$\uparrow$

## Car Operation Panel & Hall Indicator Button : G1N series

 $\ensuremath{\ensuremath{\mathbb{X}}}\xspace$  Note: Applicable to Wide Car type models



10mm

#### Button Line-up

NB-1	NB-1A	NB-1B
×		Ŧ
NB-2	NB-2A	NB-2B
X		\$



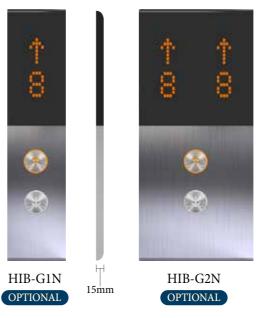
### HIB type

## LCD Segment



## LED Dot Matrix

 $\ensuremath{\ensuremath{\mathbb{X}}}\xspace$  Note: A white color or orange color can also be selected for the LED light.



NB-1	NB-1A	NB-1B
×		*
NB-2	NB-2A	NB-2B
X		*

## Car Operation Panel & Hall Indicator Button : G1L· G1K series

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





KB-1	KB-1A	KB-1B
2	2	2
KB-2	KB-2A	KB-2B
2	2	2
KB-3	KB-3A	KB-3B
2	2	2
KB-4	KB-4A	KB-4B
2	2	2
KB-7	KB-7A	KB-7B
S	2	2
KB-8	KB-8A	KB-8B
2	2	2





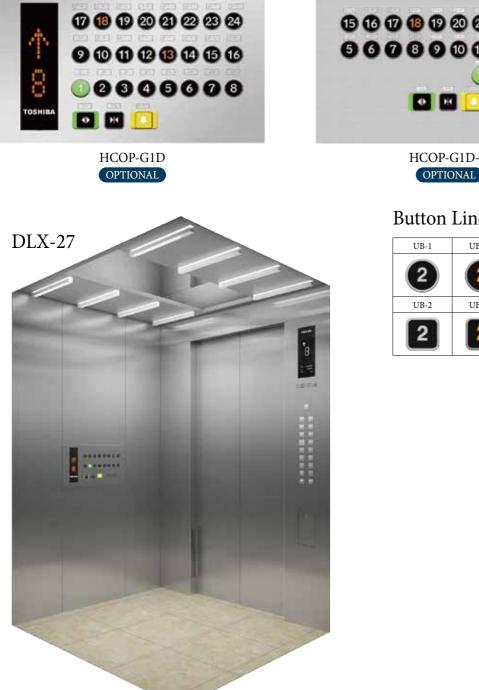


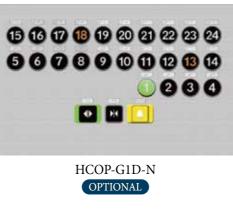
KB-1	KB-1A	KB-1B
2	2	2
KB-2	KB-2A	KB-2B
2	2	2
KB-3	KB-3A	KB-3B
2	2	2
KB-4	KB-4A	KB-4B
2	2	2
KB-7	KB-7A	KB-7B
	2	2
KB-8	KB-8A	KB-8B
-	2	2
UB-1	UB-1A	UB-1B
2	2	2
UB-2	UB-2A	UB-2B
2	2	2

## Car Operation Panel : HCOP series

\*Note: Applicable to Wide Car type models

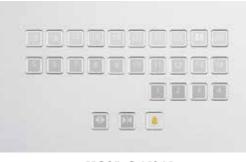
#### HCOP type





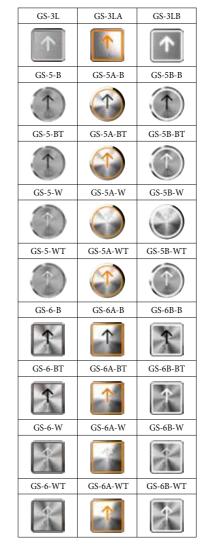
#### Button Line-up





HCOP-G1NS-N OPTIONAL

#### Button Line-up

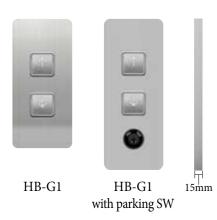






KB-1	KB-1A	KB-1B
2	2	2
KB-2	KB-2A	KB-2B
2	2	2
KB-3	KB-3A	KB-3B
2	2	2
KB-4	KB-4A	KB-4B
2	2	2
KB-7	KB-7A	KB-7B
8	3	3
KB-8	KB-8A	KB-8B
4	2	2

## Hall Button OPTIONAL



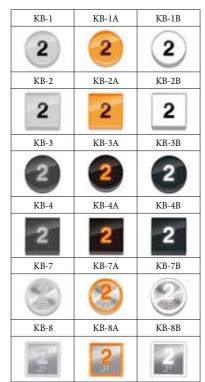


#### Button Line-up

NB-1	NB-1A	NB-1B
*		*
NB-2	NB-2A	NB-2B
X		<b>P</b>
GS-3L	GS-3LA	GS-3LB
$\uparrow$		

#### Button Line-up

3mm



## Hall Lantern

Hall Lantern OPTIONAL

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





(Orange light)

HL-G2-W (White light)

## Hall Indicator

Hall Indicator OPTIONAL

LED Dot matrix %Note: A white color or orange color canalso be selected for the LED light.



HI-G1-O

#### LCD Hall Indicator OPTIONAL

5.7 inch Color LCD





HI-G1L-57B



HL-G3-O (Orange light)



HL-G4-O (Orange light)



HI-G34-O

With monitoring



Controlled status



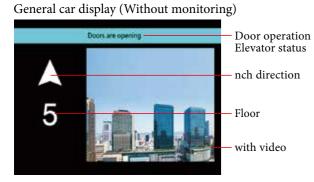
The actual product colors may vary slightly from those printed colors in this catalog.

## Car Position Indicator

## Large LCD Indicator for Car Operation Panel OPTIONAL

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

#### 10.4 inch Color LCD



### 8.4 inch Color LCD

#### Elevator Status Doors are ope Direction - Floor 8 - Door Operation < 👬 >

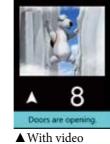
#### General car display (With monitoring)



#### Display under controlled status





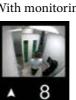




## General car display

5.7 inch Color LCD





#### LCD Segment



#### LED Dot matrix



## With monitoring

With video



#### LED Segment



#### Controlled status



## **Functions**

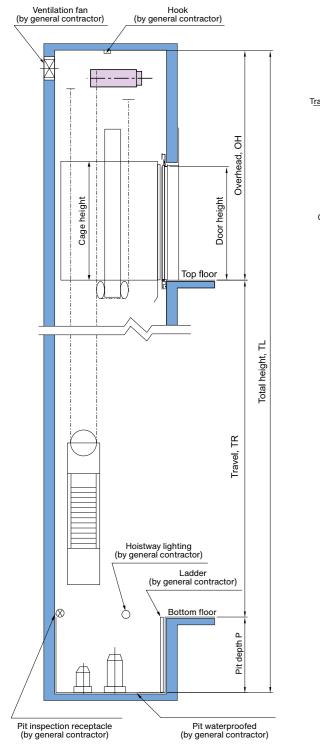
 $\bigcirc$ : STANDARD  $\triangle$ : OPTIONAL

Functions	Notes	Descriptions	
	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	0
	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
<b>.</b> .	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.	

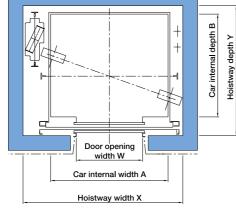
Functions	Notes	Descriptions								
	Service floor cut-off selection [Manual]	linstalling a switch or a timer on the supervisory panel, disables registration of car calls or hall calls for a basement floor's or an intermediate floors or intermediate floors thus engaging in non-stop (bypass) without 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								
	Car call cancellation	The floor call can be cancelled from the COP by pressing the floor button twice within 3 second								
	Nuisance call cancellation (Note 4)	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation								
	Door repeated opening	When an obstacle is detected, the door will repeatedly open and close until the obstacle is removed	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	$\bigtriangleup$							
	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	$\bigtriangleup$							
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								
	Parking operation [Manual]	Parks the lift at designated floor by key-switch	0							
	Parking operation [Automatic]	Parks the lift at designated floor auotmatically	$\bigtriangleup$							
	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								
	Door Open button lamp [For automatically cut-off car lighting]	The "Door Open" button will remain lit when the lift car light is turned off automatically								
	Nuisance call cancellation at reversal	Cancel intentionally registered nuisance calls automatically in the reversal travel direction								
	Multi-channel intercom	The intercom system can communicate with multi-stations simultaneously								
	Designated floor stop operation	Automatically stops the lift at the designated floor for crime prevention purposes								
	Card access system	Allows activation of the disnated floor call by IC card % Card Access System by others								
	Speech synthesizer	Announces car operations								
	Supervisory panel	Located in the building control room, etc. to monitor the status and control of each lift	$\bigtriangleup$							

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

#### $\bigcirc$ : STANDARD $\triangle$ : OPTIONAL



Traction machine Ŧ Control panel Top floor hoistway plan



Typical floor hoistway plan (W, D)

## **Specifications**

Туре		Nos.of Person	Capacity	Speed	Cage s Internal(		Door e (m	ntrance nm)	C/W	Hoistway size(mm)			Max. Service	Max. Travel
		Feison	(kg)		A×B	Height	Width	Height		X×Y	OH	Р	Stops(s)	
P9-CO60	w	9		1	-	- - 2300 -	800 900			2190×1670 2290×1670	4120	1450	40	80
P9-CO96	w			1.6			800 900			2190×1670 2290×1670	4270	1500		
P9-CO105	w		612	1.75			800 900	2100	Side	2190×1670 2290×1670	4320	1550		100
P9-CO120	w			2			800 900	1		2190×1670 2290×1670	4520	1650		100
P9-CO150	w			2.5			800 900			2190×1670 2290×1670	4570	2100		
P11-CO60	w			1	 1400×1350	2300 -	800 900			2200×1780 2300×1780	4120	1450	40	80
P11-CO96	w		748	1.6			800 900	1		2200×1780 2300×1780	4270	1500		100
P11-CO105	w	11		1.75			800 900	2100	Side	2200×1780 2300×1780	4320	1550		
P11-CO120	w			2			800 900			2200×1780 2300×1780	4520	1650		
P11-CO150	w			2.5			800 900			2200×1780 2300×1780	4570	2100		
P14-CO60	w		14 952	1		2300	900 1000 1100	2100		2400×1800 2500×1800 2600×1800	4120	1450	40	80
P14-CO96	w			1.6			900 1000 1100			2400×1800 2500×1800 2600×1800	4270	1500 1550 1650 2100		100
P14-CO105	w	14		1.75	1600×1400		900 1000 1100		Side	2400×1800 2500×1800 2600×1800	4320			
P14-CO120	w			2			900 1000 1100			2400×1800 2500×1800 2600×1800	4520			
P14-CO150	w			2.5		-	900 1000 1100			2400×1800 2500×1800 2600×1800	4570			

W: Wide car

#### Note:

The above scope complies with IS14665 standard. Please contact us to check for other standard.
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.

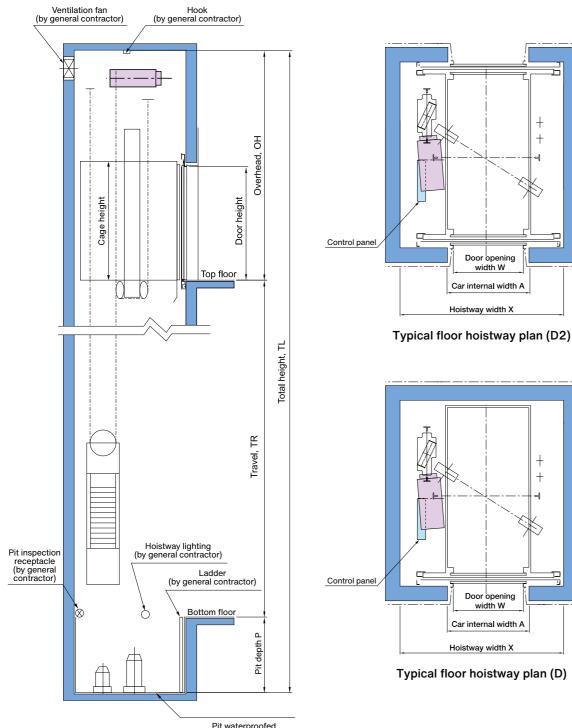
 Hoistway dimensions take into account the error of up to 50 mm after the construction work. • The hoistway dimensions in chart are the minimum requirement.

• 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

## **Specifications**



Pit waterproofed (by general contractor)

Hoistway section

		Nos.of Person		Speed	Cage size Internal(mm)			ntrance m)	C/W	Hoistway	v size(m	m)	Max. Service	Max. Travel
		Person	(kg) -	(m/s)	A×B	Height	Width	Height		X×Y	OH	Р	Stops(s)	(m)
P7-CO60	D	7	476	1	1100×1100	2300	800	2100	Side	1950×1670	4120	1450	40	80
P7-CO105	D			1.75							4320	1550		100
P8-CO60 P8-CO105	D	8	544	1	1100×1300	2300	800	2100	Side	1950×1740	4120 4320	1450 1550	40	80 100
							800			1990×1760				
P9-CO60	D			1			900			2140×1760	4120	1450		80
P9-CO96	D			1.6			800			1990×1760	4270	1500		
		_					900			2140×1760				
P9-CO105	D		612	1.75	1100×1400	2300	800 900	2100	Side	1990×1760 2140×1760	4320	1550	40	
D0 C0120	D			2			800			1990×1760	4500	4050		100
P9-CO120	D			2			900			2140×1760	4520	1650		
P9-CO150	D			2.5			800			1990×1760	4570	2100		
							900 800			2140×1760 2000×2060				
	D						900			2000×2000 2140×2060			40	
P11-CO60	D2			1			800			2000×2170	4120	1450		80
	02				- 1100×1700 -		900			2140×2170			*	
	D					2300	800			2000×2060	4270	1500	40	
P11-CO96				1.6			900 800			2140×2060 2000×2170				
	D2						900			2140×2170			*	
	D						800			2000×2060		1550	40	
P11-CO105		11	748	1.75			900	2100	Side	2140×2060			40	
	D2						800	2.00	- Ciuc	2000×2170			*	
		-					900 800			2140×2170 2000×2060				100
	D	-		2			900			2000×2000 2140×2060			40	
P11-CO120	D2						800			2000×2170	4520	2100	*	
	DZ						900			2140×2170			*	
	D			2.5			800			2000×2060			40	
P11-CO150							900 800			2140×2060 2000×2170				
	D2						900			2140×2170			*	
	D						800			2000×2460			40	- 80
P14-CO60				1			900			2140×2460	4120	1450	40	
	D2			1			800 900			2000×2570 2140×2570		1500	*	
							800			2000×2460				
D14 CO06	D			4.0			900			2140×2460	1		40	
P14-CO96	D2			1.6			800			2000×2570	4270		*	
							900			2140×2570			~	
	D						800 900			2000×2460 2140×2460			40	
P14-CO105		14	952	1.75	1100×2100	2300	800	2100	Side	2000×2570	4320	1550		
	D2						900			2140×2570			*	
	D						800			2000×2460	4520		40	100
P14-CO120				2			900			2140×2460		1650		
	D2						800 900			2000×2570 2140×2570			*	
							800			2140×2570 2000×2460				
D14 CO450	D			25			900			2140×2460	4570	2100	40	
P14-CO150	D2			2.5			800			2000×2570	4570	2100	*	
							900			2140×2570			~	

Typical floor hoistway plan (D)

Car internal depth B Hoistway depth Y

Car internal depth B depth '

Ē

+

+

Note:

• The above scope complies with IS14665 standard. Please contact us to check for other standard. • 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.

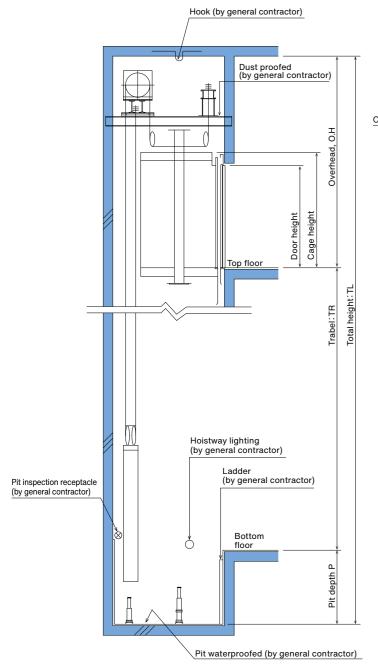
• Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.

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

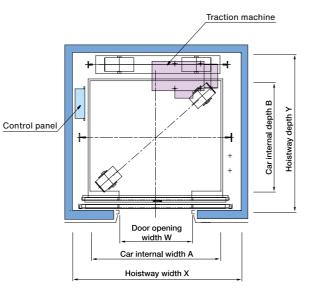
• If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.

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

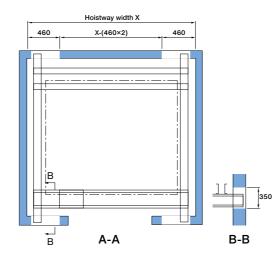
## **Specifications**

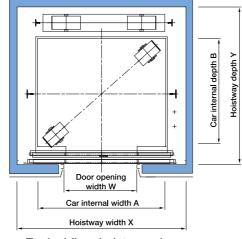


Hoistway section



Top floor hoistway plan





Typical floor hoistway plan

Туре		Nos.of	Capacity		Cage size Internal(mm)			entrance mm) C/W		Hoistway size(mm)			Max. Service	Max. Trave
		Person	(kg)	(m/s)	A×B	Height	Width	Height		Χ×Υ	OH	Р	Stops(s)	(m)
P17-CO60	w						1000			2450×2170	4580	1480		
P17-C060	VV	17		1			1100			2550×2170	4580	1480	- 48	80
P17-CO96	w			10			1000			2450×2170	4750	1550		
F17-CO90	vv			1.6			1100			2550×2170	4750			
P17-CO105	w			1.75	- 1800×1500		1000			2450×2170	4810	1580		
111-00105			1156	1.75		2300	1100	2100	Rear	2550×2170	4010	1600		100
P17-CO120	w			2			1000			2450×2170	4900			
							1100			2550×2170				
P17-CO150	w			2.5			1000			2450×2170	5200	2000		
							1100			2550×2170			-	
P17-CO180	w			3			1000			2600×2170	5700	2500		150
							1100			2700×2170				-
P19-CO60	W			1	2000×1500 23	2300				2650×2170	4580	1480		80
P19-CO96	W		1292	1.6					Rear		4750	1550		100
P19-CO105		19		1.75			1100	2100			4810	1580	48	
P19-CO120				2							4900	1600 2000	-	
P19-CO150				2.5						0000.0170	5200 5700			450
P19-CO180	W			3			44.00			2800×2170	5700	2500		150
P23-CO60	w		1564	1	6 75 2000×1700	- - 2300 -	1100 1200			2700×2370 2750×2370	4580 4750 4810 4900	1480		80
							1200			2700×2370				100
P23-CO96	W			1.6			1200			2750×2370		1550		
							1100			2700×2370			- 48	
P23-CO105	w			1.75			1200			2750×2370		1580		
		23		-			1100	2100	0 Rear	2700×2370				
P23-CO120	W			2			1200			2750×2370		1600		
P23-CO150	1.47					1100			2700×2370	5000	0000			
P23-C0150	vv				_	-	1200			2750×2370	5200	2000		150
P23-CO180	w						1100			2850×2370	5700	2500		
123-00100	~~			5			1200			2900×2370	5700	2500		150
P25-CO60	W			1							4580	1480		80
P25-CO96	W			1.6						2800×2420	4750	1550		
P25-CO105	W	25	1700	1.75	2100×1750	2300	1200	2100	Rear	2000~2420	4810	1580	48	100
P25-CO120	W	20	1700	2	2100.1700	2000	1200	2100	iteai		4900	1600		100
P25-CO150				2.5						2950×2420	5200	2000	1	
P25-CO180	W			3						2000-2420	5700	2500		150
P29-CO60	W			1							4580	1480		80
P29-CO96	W			1.6						2800×2620	4750	1550		100
P29-CO105		29	1972	1.75	2100×1950	2300	1200	2100	Rear		4810	1580	48	
P29-CO120				2		2.000 2000					4900	1600		
P29-CO150	W			2.5						2950×2620	5200	2000		
P29-CO180	W			3							5700	2500		150

W: Wide car

Note:

• The above scope complies with IS14665 standard. Please contact us to check for other standard. • 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**

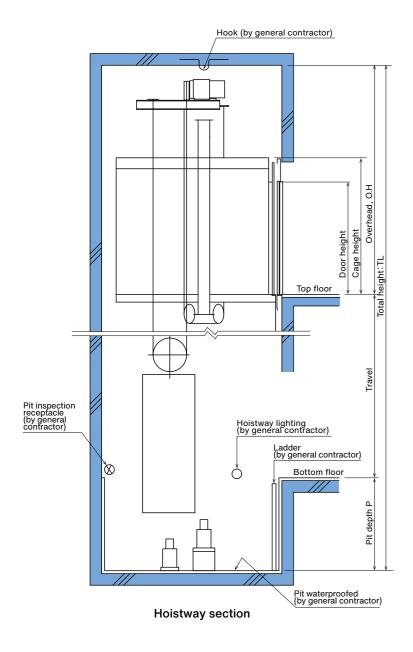
1

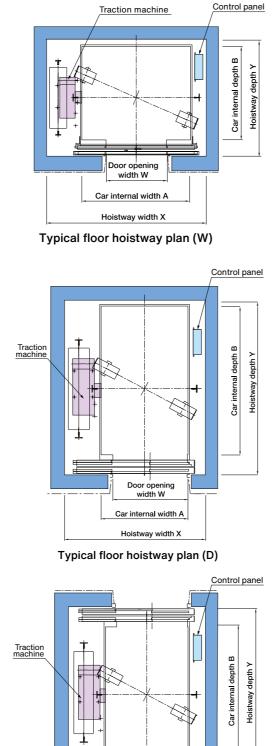
P17-CO60

w

1000

1100





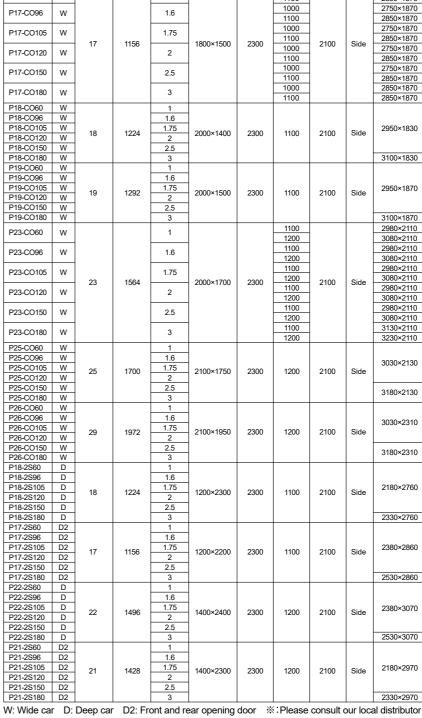
Door opening

width W

Car internal width A

Hoistway width X

Typical floor hoistway plan (D2)



#### Note:

The above scope complies with IS14665 standard. Please contact us to check for other standard.

- 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.

57

itrance n)	C/W	Hoistway	size(m	m)	Max. Service	Max. Travel
Height	0,	X×Y	OH	Р	Stops(s)	(m)
		2750×1870				0.0
2100		2850×1870	4210	1450		80
		2750×1870	4360	1550		
		2850×1870	4000	1550		
		2750×1870	4420	1600		
	Side		2750×1870 2750×1870 2850×1870 2750×1870		48	100
		2750×1870				
		2850×1870	4710	2050		
		2850×1870	5310	2900		150
		2850×1870				
			4210	1450		80
		0050.4000	4360	1550		
2100	Side	2950×1830	4420 4510	1600 1650	48	100
			4310	2050		
		3100×1830	5310	2000		150
		0100-1000	4210	1450		80
			4360	1550		
2100	Cid-	2950×1870	4420	1600	40	
2100	Side		4510	1650	48	100
			4710	2050		
		3100×1870	5310	2900		150
		2980×2110	4210	1500		80
		3080×2110	4210	1000		
	Side	2980×2110	4360	1600		
		3080×2110				
		2980×2110	4420	1650		
2100		3080×2110 2980×2110			48	100
		3080×2110	4510	1700		
		2980×2110				
		3080×2110	4710	2100		
		3130×2110	5040	0000		450
		3230×2110	5310	2900		150
	Side		4210	1500	48	80
		3030×2130	4360	1600		
2100		5050*2150	4420	1650		100
			4510	1700		
		3180×2130	4710	2150		450
			5310	2900		150 80
			4210 4360	1500 1600		80
	Side	3030×2310	4420	1650		
2100			4510	1700	48	100
		2400-2046	4710	2150		
		3180×2310	5310	2900		150
			4210	1450		80
			4360	1550		
2100	Side	2180×2760	4420	1600	48	100
			4510	1650		
		0000-0700	4710	2050		150
		2330×2760	5310	2900 1450		150 80
			4210 4360	1450		00
		2380×2860	4300	1600		
2100	Side	2000 2000	4510	1650	*	100
			4710	2050		
		2530×2860	5310	2900		150
			4210	1500		80
			4360	1600		
2100	Side	2380×3070	4420	1650	48	100
2100	Olde		4510	1700	-0	100
			4710	2100		
		2530×3070	5310	2900		150
			4210	1500		80
		0400.0070	4360	1600		
2100	Side	2180×2970	4420 4510	1650 1700	*	100
			4510	2100		
		2330×2970	5310	2900		150
		2000-2010	0010	2000		150

## **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).
- 5. Finishing of walls and floors, etc., around entrances, after furnishing equipment related to landing entrances.
- 6. Furnishing of base steel or others for furnishing rail brackets, especially where the floor height is high (if necessary).
- 7. Installation of the entrance or the gangway for pit inspection (if necessary).
- 8. Water-proofing of the pit (including drainage if necessary).
- 9. Rearrangement of the building body in case that there are some spaces to be used under the pit.
- 10. Installation of emergency exits for rescue purposes in the event there are floors at which the elevator does not stop and installation of a fascia plate.
- 11. Shelter equipment from rain at landing entrances directly contacting to the air in the place like roof.
- 12. Installation of hooks or beams on top of the elevator shaft.
- 13. Installation of lighting in hoistway (if necessary).
- 14. Installation of vent opening at the top of shaft (if necessary).
- 15. Installation of a net or wall to prevent falling into the pit (in cases where the pit level is different.)
- 16. All related to the building structure other than works above.

#### ► Works for Equipment

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

#### ► Temporary Works

It is required to arrange the following matters:

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

#### Note

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

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

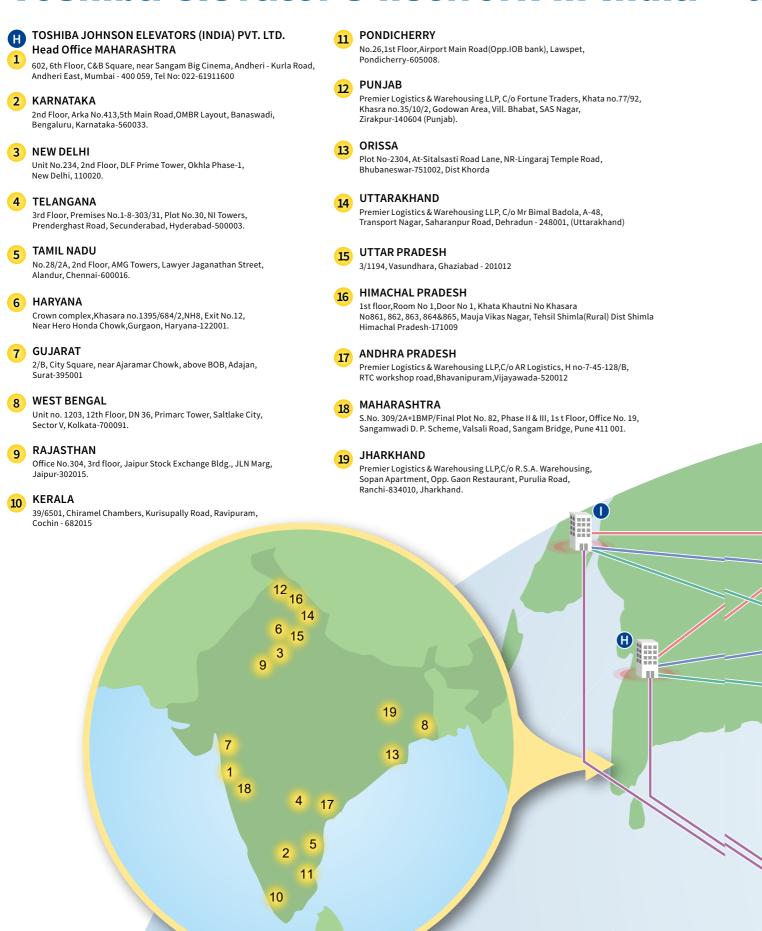
When asking for an estimate, please inform us of the following:

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



## **Toshiba elevator's network in India** and Globally

Head office / Manufacturing base





В

C

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



J

Ø

EG

C













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



#### Toshiba Johnson Elevators (India) Private Limited

602, 6th floor, C&B Square, Sangam Complex, 127, Andheri Kurla Road, Andheri (East), Mumbai-400 059, Maharashtra, India

