

# **TOSHIBA**

**TOSHIBA MACHINE-ROOM-LESS ELEVATORS** STANDARD PASSENGER ELEVATOR



### **3rd Edition**

For Indian standard

Safety Cautions

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

### **TOSHIBA**

Toshiba Elevator and Building Systems Corporation

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

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

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

\* Revised publication effective Mar. 2022

GK-F209(2)-2203-1000-2203(TD)

N. tale

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

# **CONCEPT of SPACEL-**III

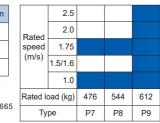
Toshiba manufactures elevators by applying the latest technology and improved elevator development skills. SPACEL-III, the most recent high-end machine room less elevator, which incorporates various technologies to save energy and time, contributes to global environment.

### 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	$9\sim 29~{ m persons}$	
Rated load	$612\sim1972~{ m kg}$	
Rated speed	1.0 ~ 2.5 m/s <sup><sup>™Note1</sup></sup>	
Note1: Applicable range Rated load 1564 or		

less for rated speed 2.5 m/s. Note2: The above scope complies with IS14665

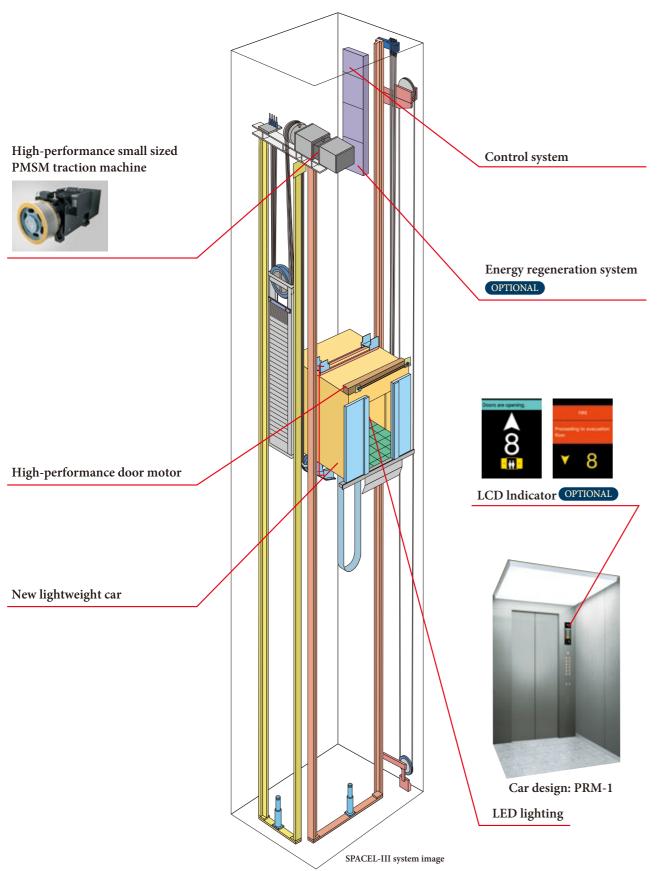


	SP	AO						
748	952	1156	1224	1292	1496	1564	1700	1972
P11	P14	P17	P18	P19	P22	P23	P25	P29



### Contents

The Solutions	
Company Solutions	P.1
Concept of SPACEL-III	P.2
Technology	
Technology	P.3
Safety Function	P.5
Energy Saving & Environment	
Expansion of variations	
in car ceiling design	2.13
Car Design	
OFFICE]	P.15
OFFICE	2.17
HOTEL	
SHOP]	
Hall Design	
Hall Decoration Item Variation]	2.23
Operation Systems	2.31
Functions	
Hoistway Layout/ Specifications	2.51
Works by Others	2.61
Toshiba elevator's network in India and Globally	2.63



# **New Technology**

### High-performance Small Sized PMSM Traction Machine

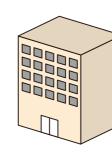
- Compact PMSM (Permanent Magnet Synchronous Motor) for space saving.
- ♦ Over 30% less power consumption (compared to conventional electric motor).
- Gearless traction without gear oil for low vibration, low noise and better environmental conservation.

### 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

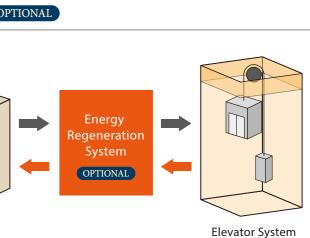
### Use of Roller Guide OPTIONAL

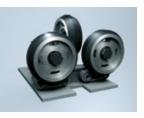
A roller guide is used instead of a conventional sliding guide shoe. Features include:

- ♦ 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.

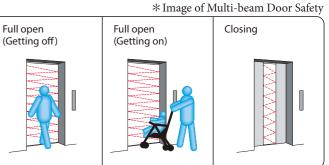
### Ascending Car Overspeed Protection

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

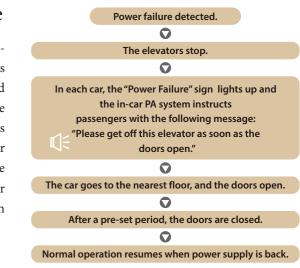
In case of a power failure, backup lamps are automatically lighted up in the cars, while the system's operation is switched to the elevator system's own battery powered inverter. Cars stranded between floors are taken to the nearest floor; otherwise, doors are opened and passengers are let out. The doors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

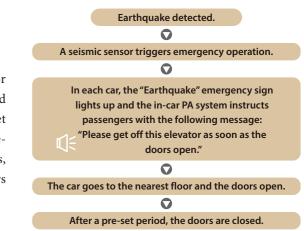
When the system's seismic sensor installed in the elevator shaft detects an S-wave (the secondary seismic wave and the main shock of an earthquake) that exceeds the pre-set threshold, the system takes control with emergency procedures. "Earthquake" emergency signs lighted up in all cars, all cars are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

### **Fire Emergency Operation** OPTIONAL

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



XAbove flowchart is representable example



XAbove flowchart is representable example



XAbove 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.

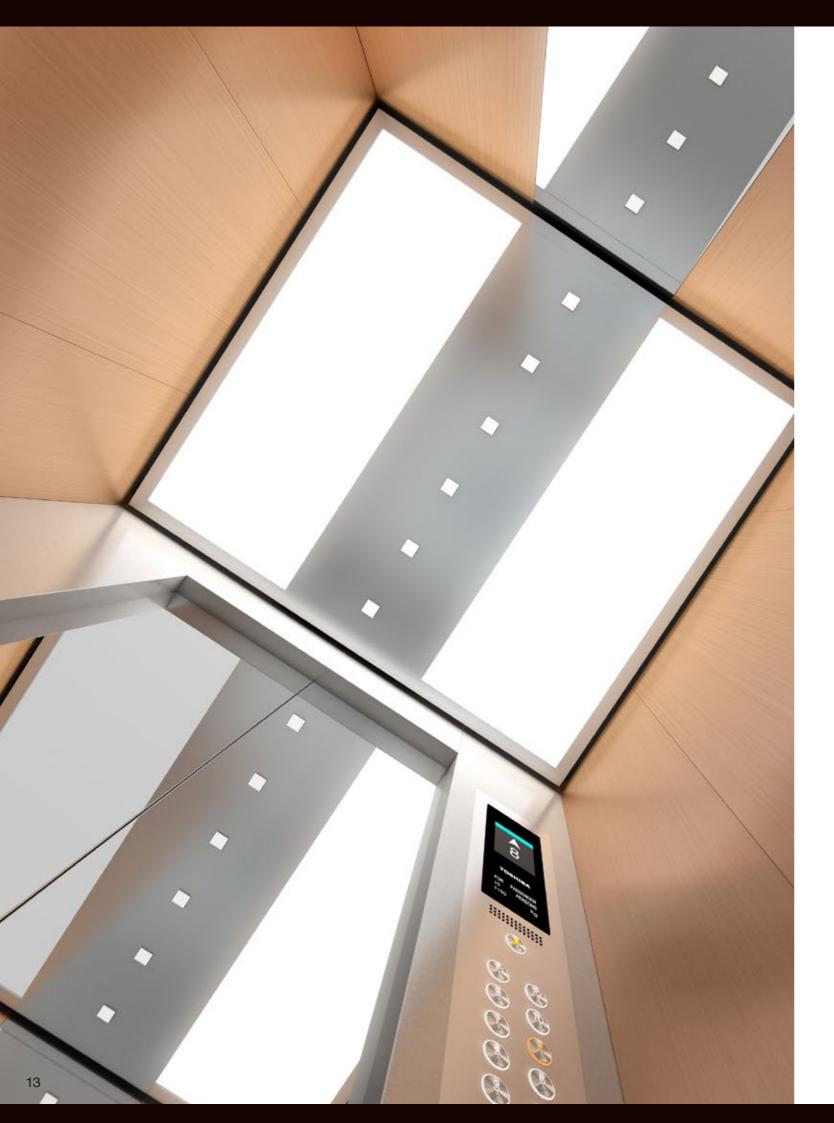
Whereas product assessment is used to confirm the minimum necessary environmentally conscious requirements for product development, Voluntary Environmental Standards for Products have been established in the Toshiba elevator group to create highly environmentally friendly products and products complying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



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.



# OPTIONAL PRM-1

Front side view



Back side view



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

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** 









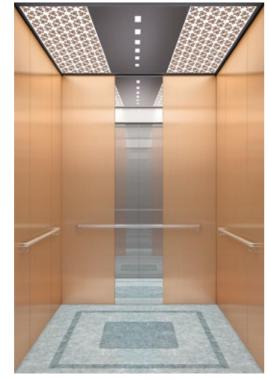


# DLX-24

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	5.7 inch Color 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.







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.









## OPTIONAL **DLX-31**

### Front side view



Back side view



Ceiling design	DLX-31
Car side panel (Return panel)	Black color hairline finish stainless steel
Car side panel (Side panel)	Black color hairline finish stainless steel and Mirror etching finish stainless steel
Car side panel (Rear panel)	Black color hairline finish stainless steel and Mirror etching finish stainless steel
Kick plate	Nil
Car door	Mirror etching finish stainless steel
Car floor	Marble (JQ-1012)
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







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.









## 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 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.







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 type jamb with transom Hairline finish stainless steel
Hall door	Hairline finish stainless steel
Hall transam	Hairline finish stainless steel
Hall sill	Hardened aluminium
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





# 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





ℜ



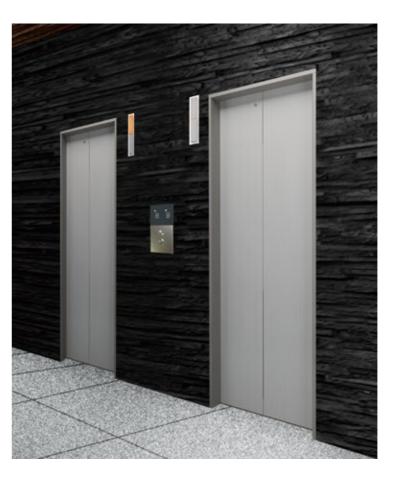


Hall design 3	OPTIONAL
---------------	----------

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



HIB-G1NL







HL-G1-O

# 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







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



HI-G1-O







HB-G1K

# Hall design 6 STANDARD

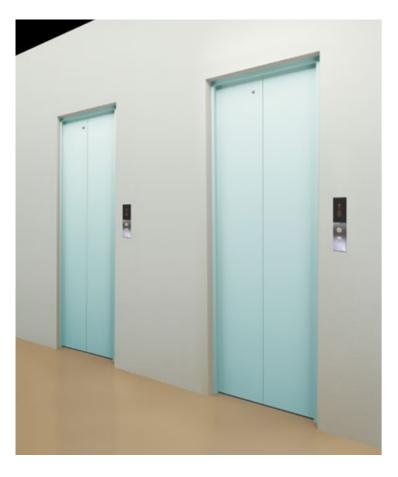
Hall jamb	Narrow type jamb Painted steel panel (77GS)
Hall door	Painted steel panel (77GS)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator / Hall button	HIB-G1N
Hall lantern	Nil



HIB-G1N
---------

1 8

۲



Hall c	lesign 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



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

30

# OPERATION SYSTEMS

8

9999999

8

TOSHIBA

FOR PASSENGER 15 PERSONS 1150 kg

<u>()</u>

۵ 🚯

3

31



# Car Operation Panel: POP type

ℜNote: Applicable to Wide Car type models

### Car Operation Panel





Indicator



Button

10.4 inch Color LCD

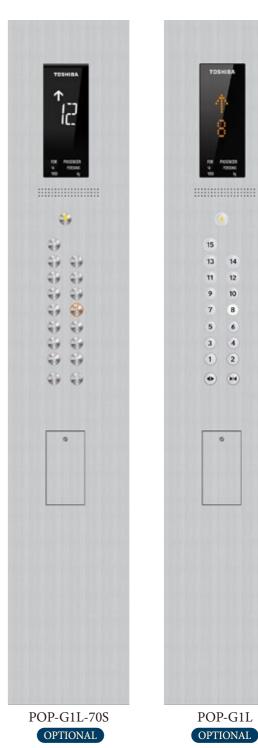


OPTIONAL

### Car Operation Panel



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



12

10

8

6

4

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





LED Segment



Button

### DLX-31



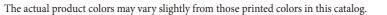
### Car Operation Panel





SL-P1





LED Segment

Button



GS-5B-WT

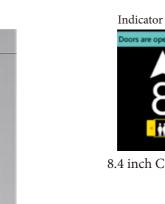


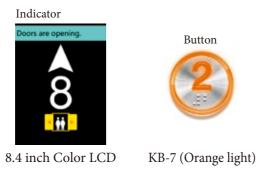
# Car Operation Panel: FCOP type

XNote: Applicable to Deep Car type models

### Car Operation Panel







DLX-21

ors are op

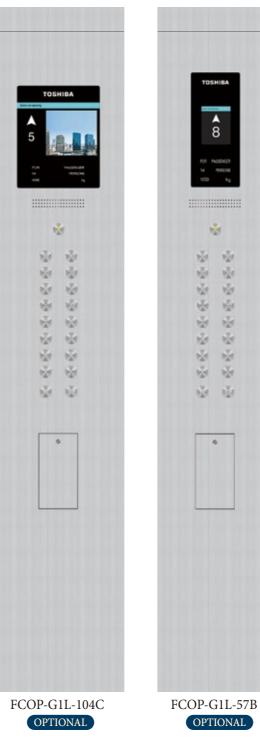
8

< 👬 Þ



OPTIONAL







TOSHIBA ICI	торина.
Rat Mathon 9 Rotes	Fit Michight 10 10006
*	۲
49	15
	13 14
333 <b>8</b> 333	11 12
49 49	9 10
🗘 🚯	78
Q9 Q9	5 6
33 <b>8</b> 333	3 4
49 49	1 2
ବ୍ୟ ବ୍ୟ	• •
0	•
FCOP-G1L-70S	FCOP-G1L
OPTIONAL	OPTIONAL

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

# Car Operation Panel: FCOP type

XNote: Applicable to Deep Car type models

### Car Operation Panel





LED Segment

GS-3LB

Button

### TL-S2











LED 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

Ŧ

8

PERMIT



# Hall Indicator Button: HIB type

### Hall Indicator Button





### LCD Segment

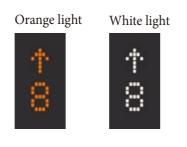


### LED Segment





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



### Detail of display

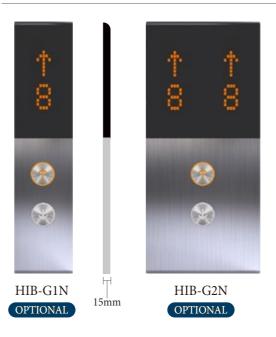


### Hall Indicator Button

### LCD Segment



### LED Dot Matrix



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

### LED Segment





# Hall Indicator

### Hall Indicator OPTIONAL



HI-G1-O





LCD Hall Indicator OPTIONAL

5.7 inch Color LCD







# 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)

## Hall Button OPTIONAL



with parking SW



HL-G3-O (Orange light)



HL-G4-O (Orange light)



## Car Position Indicator

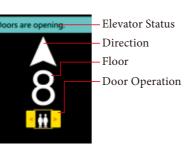
### Large LCD Indicator for Car Operation Panel OPTIONAL

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

### 10.4 inch Color LCD

### General car display (Without monitoring) Door operation Doors are op Elevator status nch direction 5 Floor with video

### 8.4 inch Color LCD



### 5.7 inch Color LCD

General car display





### LCD Segment



### LED Dot matrix



### General car display (With monitoring)



Display under controlled status





 $\blacktriangle$  With monitoring





▲ With video

With video



### LED Segment



### Controlled status



# **Functions**

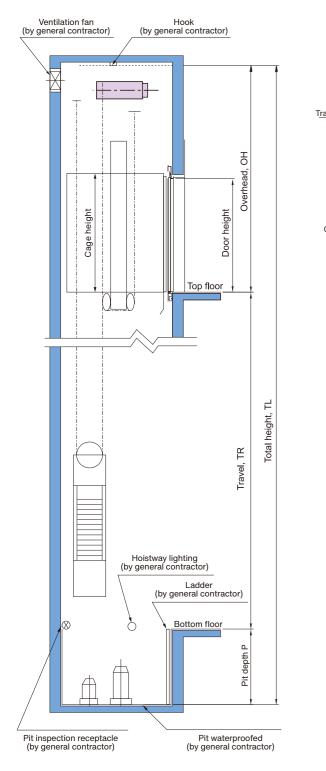
 $\bigcirc$ : STANDARD  $\triangle$ : OPTIONAL

Functions	Notes		
	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
0	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by	
Service Functions	Service floor cut-off selection [Software interface]	This is of the free setting type, where the elevator superintendent for every building is free to set and modify service cutt-off floors even after in use. This is the most appropriate type for such office buildings as their tenants are not yet fixed before complection.	

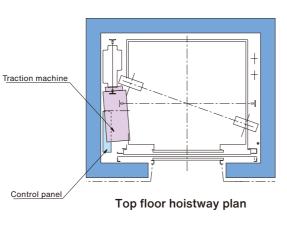
Functions	Notes	Descriptions					
	Service floor cut-off selection [Manual]	linstalling a switch or a timer on the supervisory panel, disables registration of car calls or hall calls for a basement floor's or an intermediate floors or intermediate floors thus engaging in non-stop (bypass) without servicing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

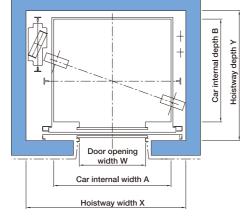
Notes
1: Not applicable to lift car with through door.
2: Fire emergency operation and fireman service cannnot be applied simultaneously.
3: Standard function for 2-car operation or 3-car operation.
4: Car load is less than 150kg and there are five or more registered car calls.

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



Hoistway section





Typical floor hoistway plan (W, D)

# **Specifications**

Туре		Nos.of Person	Capacity	Speed		Cage size Internal(mm)		ntrance m)	C/W	Hoistway			Motor Capacity	Max. Service	Max. Travel
		Feison	(kg)	(m/s)	A×B	Height	Width	Height		X×Y	OH	Р	(kW)	Stops(s)	
P9-CO60	w			1			800 900			2190×1670 2290×1670	4120	1450	3.5		80
P9-CO96	w			1.6			800 900			2190×1670 2290×1670	4270	1500	5.6		
P9-CO105	w	9	612	1.75	1400×1100	2300	800 900	2100	Side	2190×1670 2290×1670	4320	1550	6.1	40	100
P9-CO120	w			2			800 900			2190×1670 2290×1670	4520	1650	7.0		100
P9-CO150	w			2.5			800 900			2190×1670 2290×1670	4570	2100	8.7		
P11-CO60	w			1			800 900			2200×1780 2300×1780	4120	1450	4.2		80
P11-CO96	w			1.6			800 900			2200×1780 2300×1780	4270	1500	6.7		
P11-CO105	w	11	748	1.75	1400×1350	2300	800 900	2100	Side	2200×1780 2300×1780	4320	1550	7.3	40	100
P11-CO120	w			2			800 900			2200×1780 2300×1780	4520	1650	8.4		100
P11-CO150	w			2.5			800 900			2200×1780 2300×1780	4570	2100	10.5		
P14-CO60	w			1			900 1000 1100			2400×1800 2500×1800 2600×1800	4120	1450	5.4		80
P14-CO96	w			1.6			900 1000 1100			2400×1800 2500×1800 2600×1800	4270	1500	8.7		
P14-CO105	w	14	952	1.75	1600×1400	2300	900 1000 1100	2100	Side	2400×1800 2500×1800 2600×1800	4320	1550	9.5	40	
P14-CO120	w			2			900 1000 1100			2400×1800 2500×1800 2600×1800	4520	1650	10.9		100
P14-CO150	w			2.5			900 1000 1100			2400×1800 2500×1800 2600×1800	4570	2100	13.6		

W: Wide car

### Note:

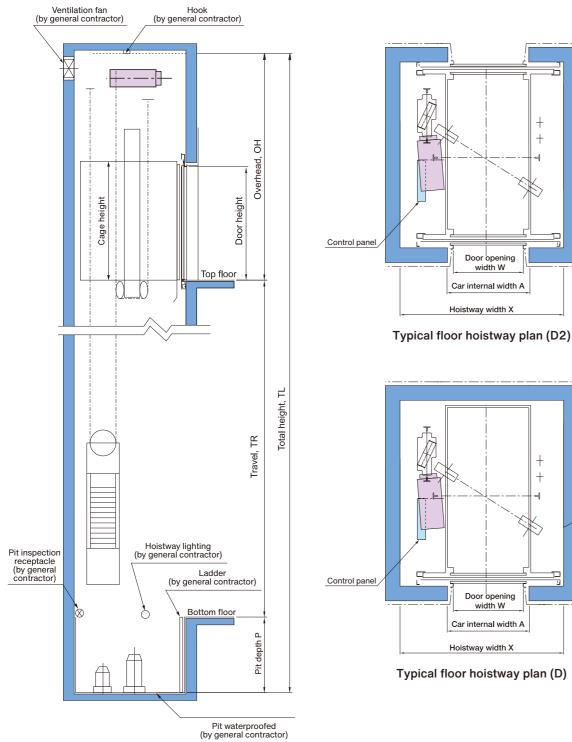
The above scope complies with IS14665 standard. Please contact us to check for other standard.
Please contact to our local distributor to check for other standards.
In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.

 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**



Hoistway section

Туре		Nos.of	Capacity	Speed	Cage s Internal	size (mm)		Door entrance (mm)		Hoistway			Motor Capacity	Max. Service	M Tra											
туре		Person	(kg)		A×B	Height	Width	Height	C/W	X×Y	OH	Р	(kW)	Service Stops(s)	ra (r											
P7-CO60	D	7	476	1	1100×1100	2300	800	2100	Side	1950×1670	4120	1450	2.7	40	8											
P7-CO105	D	<u> </u>	470	1.75	1100×1100	2300	800	2100	Side	1930×1070	4320	1550	4.7	40	1											
P8-CO60	D	8	544	1	1100×1300	2300	800	2100	Side	1950×1740	4120	1450	3.1	40	8											
P8-CO105	D			1.75			800			1990×1760	4320	1550	5.4		1											
P9-CO60	D			1			900			2140×1760	4120	1450	3.5		8											
D0.0000	D			4.0			800	1		1990×1760	4070	4500	5.0													
P9-CO96				1.6			900	]		2140×1760	4270	1500	5.6													
P9-CO105	D	9	612	1.75	1100×1400	2300	800	2100	Side	1990×1760	4320	1550	6.1	40												
					-		900 800	-		2140×1760 1990×1760					1											
P9-CO120	D			2			900		1		2140×1760	- 4520 I 165	1650	7.0												
P9-CO150	D	1		2.5			800	1		1990×1760	4570	2100	8.7													
F9-C0150				2.0			900			2140×1760	4570	2100	0.7													
	D						800	-		2000×2060				40												
P11-CO60	<u> </u>			1			900 800	-		2140×2060 2000×2170	4120	1450	4.2													
	D2						900	1		2140×2170				*												
	D	1			1		800	]		2000×2060				40												
P11-CO96				1.6			900	]				2140×2060	4270	1500	6.7	40										
	D2						800	-		2000×2170				*												
					-		900 800	-		2140×2170 2000×2060		1550	7.3													
D44 00405	D		748		1100×1700	2300	900	2100 S	0.1	2140×2060	4320			40												
P11-CO105	D2	11	748	1.75			800		Side	2000×2170				*												
					-		900	-		2140×2170				~												
	D						800 900	-		2000×2060 2140×2060	-		8.4	40												
P11-CO120				2			800	1		2000×2170	4520	1650		*	1											
	D2						900	1		2140×2170																
	D				]		800			2000×2060	4570		10.5	40												
P11-CO150				2.5			900	-		2140×2060		2100														
	D2						800 900	-		2000×2170 2140×2170				*												
							900			2140×2460				40												
P14-CO60	D			1			1000	]		2340×2460	4120	1450	5.4	40												
1 14 0000	D2						900	-		2140×2570	4120	1450	0.4	*												
					-		1000 900	-		2340×2570 2140×2460																
	D						1000	1		2340×2460				40												
P14-CO96	D2			1.6			900	1		2140×2570	4270	1500	8.7	*												
	02						1000			2340×2570				*												
	D						900 1000	-		2140×2460				40												
P14-CO105	<u> </u>	14	952	1.75	1100×2100	2300	900	2100	Side	2340×2460 2140×2570	4320	1550	9.5													
	D2						1000	1		2340×2570				*												
	D	1			1		900	]		2140×2460				40	1											
P14-CO120	Ľ.			2			1000	-		2340×2460	4520	1650	10.9													
	D2						900 1000	-		2140×2570 2340×2570				*												
	-	1						-		900	-		2340×2570 2140×2460													
P14-CO150	D																		25			1000			2340×2460	4570
F 14-00100	D2			2.5			900	]		2140×2570	4570	2100	13.6	*												
							1000	1	1	2340×2570																

Typical floor hoistway plan (D)

Door opening width W

Door opening . width W

Car internal depth B

Car internal depth B depth

+

depth Y

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.

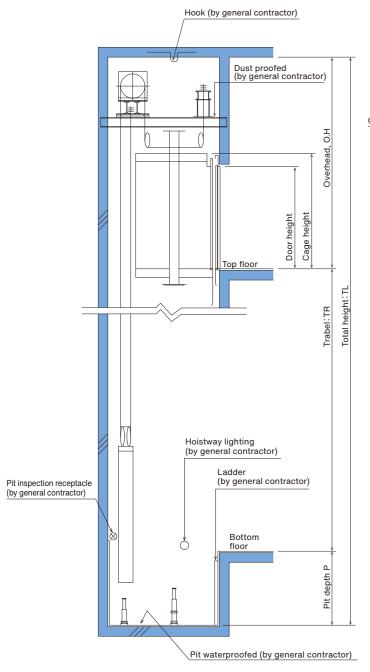
• The hoistway structure wall must be 150mm thick or more.

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

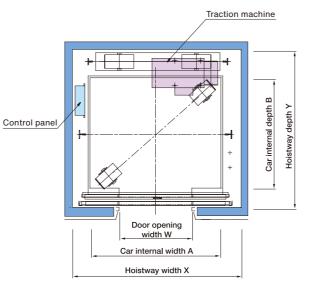
• OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.

• 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.

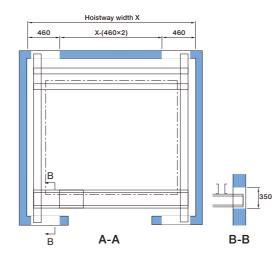
# **Specifications**

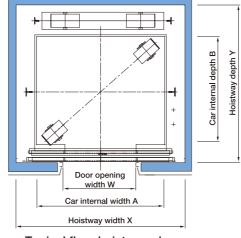


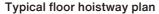
Hoistway section



Top floor hoistway plan







Туре		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage s Internal			ntrance m)	C/W	Hoistway	v size(m	m)	Motor Capacity	Max. Service	Max. Travel		
		1 613011	(rg)	(11/5)	A×B	Height	Width	Height		X×Y	OH	Р	(kW)	Stops(s)	(m)		
P17-CO60	w			1			1000			2450×2170	4580	1480	7.0		80		
111-0000	~~			1			1100			2550×2170	4300	1400	7.0		00		
P17-CO96	w			1.6			1000			2450×2170	4750	1550	12.0				
117-0030				1.0			1100			2550×2170	4700	1000	12.0				
P17-CO105	w	17	1156	1.75	1800×1500	2300	1000	2100	Rear	2450×2170	4810	1580	12.0	48			
1 11 00100			1100	1.75	1000-1000	2000	1100	2100	- Real	2550×2170	4010	1000	12.0	10	100		
P17-CO120	w			2			1000			2450×2170	4900	1600	14.0				
00.20				2			1100			2550×2170							
P17-CO150	w			2.5			1000			2450×2170	5200	2000	18.0				
							1100			2550×2170							
P19-CO60	W			1							4580	1480	8.0		80		
P19-CO96	W			1.6							4750	1550	12.0				
P19-CO105	W	19	1292	1.75	2000×1500	2300	1100	2100	Rear	2650×2170	4810	1580	14.0	48	100		
P19-CO120	W			2							4900	1600	16.0				
P19-CO150	W			2.5							5200	2000	22.0				
P23-CO60	w			1			1100			2700×2370	4580	1480	10.0		80		
							1200			2750×2370					00		
P23-CO96	w			1.6			1100			2700×2370	4750	1550	16.0				
							1200			2750×2370							
P23-CO105	w	23	1564	1.75	2000×1700	2300	1100	2100	Rear	2700×2370	4810	1580	18.0	48			
							1200			2750×2370					100		
P23-CO120	w			2			1100			2700×2370	4900	1600	20.0				
							1200			2750×2370	4000 1000	1000	1000				
P23-CO150	w			2.5			1100			2700×2370	5200	2000	24.0				
							1200			2750×2370							
P25-CO60	W			1							4580	1480	10.0		80		
P25-CO96	W	25	1700	1.6	2100×1750	2300	1200	2100	Rear	2800×2420	4750	1550	16.0	48			
P25-CO105				1.75							4810	1580	18.0		100		
P25-CO120				2							4900	1600	20.0				
P29-CO60	W			1							4580	1480	12.0		80		
P29-CO96	W	29	1972	1.6	2100×1950	2300	1200	2100	Rear	2800×2620	4750	1550	20.0	48			
		20		1.75	2100-1000	2000	1200	2.00		2000-2020	4810	1580	20.0		100		
P29-CO120	W			2							4900	1600	24.0				

W: Wide car

### Note:

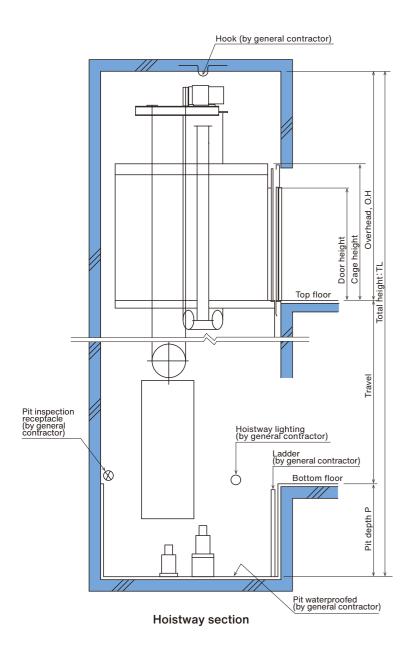
• The above scope complies with IS14665 standard. Please contact us to check for other standard. • Please contact to our local distributor to check for other standards.

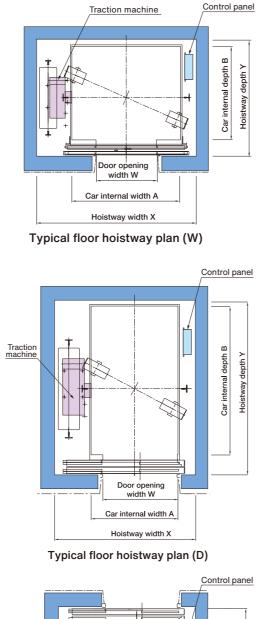
• In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.

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 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**





. ) piccai incon inclosing ( picai ( 2 )	
Traction the second sec	Car internal depth B Hoistway depth Y
Door opening width W	
Car internal width A Hoistway width X	

Typical floor hoistway plan (D2)

Туре		Nos.of Person	Capacity	Speed (m/s)	Cage size Internal(mm)		Door entrance (mm)		C/W	Hoistway size(mm)			Motor Capacity	Max. Service	Max. Travel
		Feison	(kg)	(11/5)	A×B	Height	Width	Height		X×Y	OH	Р	(kW)	Stops(s)	(m)
P17-CO60	w			1	_		1000			2750×1870	4210	1450	7.0		80
1 11 0000	**						1100			2850×1870		1430	7.0		
P17-CO96	W			1.6			1000 1100			2750×1870 2850×1870	4360	1550	12.0		
		4					1000			2850×1870 2750×1870					
P17-CO105	W	17	1156	1.75	1800×1500	2300	1100	2100	Side	2850×1870	4420	1600	12.0	48	
P17-CO120	w			2	1		1000	1		2750×1870	4510	1650	14.0	1	100
F 17-00120	vv						1100			2850×1870	4510	1030	14.0		
P17-C0150	W			2.5			1000	-		2750×1870	4760	2100	18.0		
P18-CO60	W			1			1100			2850×1870	4210	1450	8.0		80
P18-CO96	W	18	1224	1.6	2000×1400	2300	1100	2100	Side	2950×1830	4360	1550	12.0 14.0 48		- 00
P18-CO105	W			1.75							4420	1600		48	
P18-CO120	W			2							4510	1650	16.0		100
P18-CO150	W			2.5							4760	2100	20.0		
P19-CO60	W			1							4210	1450	8.0		80
P19-CO96	W	19	1292	1.6	2000×1500	2300	1100	2100	Side	2950×1870	4360	1550	12.0		100
P19-CO105	W			1.75							4420	1600	14.0 48 16.0	48	
P19-CO120	W			2							4510	1650		1	
P19-CO150	W			2.5							4760	2100	22.0		
	14/	<u> </u>		4			1100			2980×2110					
P23-CO60	W	-	1564	1	2000×1700	2300	1200	1		3080×2110	4210	1500	10.0		80
P23-CO96	W			1.6			1100	1	Side	2980×2110	4000	1600	16.0	48	100
P23-C096 V	vv			1.0			1200 1100 1200 1100	2100		3080×2110	4360				
P23-CO105 P23-CO120	W	23		1.75						2980×2110	4420	1650	16.0		
	w			1.75						3080×2110					
				2						2980×2110					
	VV			2			1200			3080×2110	4510 170 4760 215	1700	20.0		
D00 00450	3-CO150 W			25			1100			2980×2110			010		
P23-CO150	vv			2.5			1200			3080×2110		2150	24.0		
P25-CO60	W	25	1700	1	2100×1750	2300	1200	2100	Side	3030×2130	4210	1500	10.0	48	80 100
P25-CO96	W			1.6							4360	1600	16.0		
P25-CO105	W			1.75							4420	1650	18.0		
P25-CO120	W			2							4510	1700	20.0		
P29-CO60	W	29	1972	1	2100×1950	2300	1200	2100	Side	3030×2310	4210	1500	12.0	48	80 100
P29-CO96	W			1.6							4360	1600	20.0		
P29-CO105	W			1.75							4420	1650	20.0		
P29-CO120	W			2							4510	1700	24.0		
P18-CO60	D	18	1224	1	1200×2300	2300	1100	2100	Side	2180×2760	4210	1450	8.0	48	80
P18-CO96	D			1.6							4360	1550	12.0		
P18-CO105	D			1.75							4420	1600	14.0		
P18-CO120	D			2							4510	1650	16.0		
P18-CO150	D			2.5							4760	2100	20.0		
P17-2S60	D2			1							4210	1450	7.0		80
P17-2S96	D2	17	1156	1.6	1200×2200	2300	1100	2100	Side	2180×2870	4360	1550	12.0	1	100
P17-2S105	D2			1.75							4420	1600	12.0	*	
P17-2S120	D2			2							4510	1650	14.0	-	
P17-2S150	D2			2.5							4760	2100	18.0		
P22-2S60	D	22	1496	1	1400×2400	2300	1200	2100	Side	2380×2860	4210	1500	9.0	48	80
P22-2S96	D			1.6							4360	1600	14.0		
P22-2S105	D			1.75							4420	1650	16.0		
P22-2S120	D			2	1						4510	1700	18.0	1	100
P22-2S150	D			2.5							4760	2150	22.0	1	
P21-2S60	D2			1							4210	1500	9.0		80
P21-2S96	D2	21	1428	1.6	1400×2300	2300		2100	Side		4360	1600	14.0	1	100
P21-2S105	D2			1.75			1200			2380×2970	4420	1650	16.0	*	
FZ1-23103 1	D2 4													1 ^	
P21-23103	D2			2							4510	1700	18.0		

W: Wide car D: Deep car D2: Front and rear opening door %: Please consult our local distributor

### 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.

# **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

# 1

H TOSHIBA JOHNSON ELEVATORS (INDIA) PVT. LTD. Head Office (MUMBAI) 602, 6th Floor, C&B Square, Sangan Complex, 127, Andheri Kurla Road, Andheri (East), Mumbai 400 059, India



BANGALORE 2 No. 413, 5th Main Road, ARKA, 2nd Floor, OMBR Layout, Banaswadi, Bengaluru 560033

### 3 NEW DELHI

Unit No. 234, 2nd Floor, DLF Prime Tower, Okhla Industrial Area, Phase-I, New Delhi 110020

### GURGAON 4

4th Floor, Building no.10,Tower B, Phase-II, DLF Cyber city, Gurgaon-122002, Haryana.

10

8

3

4

2

### 5 CHENNAI

Door No.28, Lawyer Jaganathan Street, AMG Towers, 2nd Floor, Alandur, Chennai 600016



KOLKATA Unit No. 1203, 12th Floor, DN 36, Primarc Tower, Salt Lake City, Sector V, Kolkata 700 091

HYDERABAD 7 No. 6-16/3A, Dee Nagar, Chintal, Ranga Reddy District, Telangana 500054

### PUNE 8

S.No. 309/2A+1BMP/Final Plot No. 82, Phase II & III, 1st Floor, Office No. 19, Sangamwadi D. P. Scheme, Valsali Road, Sangam Bridge, Pune 411 001.

9 COCHIN 39/6501, Chiramel Chambers, Kurisupally Road, Ravipuram, Cochin - 682015

### AHMEDABAD

Block A, TF 4, Anand Complex, Sarkhej - Gandhi Nagar Highway, Ahmedabad - 9

A

В

B

E

TOSHIBA ELEVATOR AND **BUILDING SYSTEMS CORPORATION** Head Office: 72-34, Horikawa-cho, Saiwai-ku, Kawasaki 212-8585, Japan

( G

Factory: 1 Toshiba-cho, Fuchu City, Tokyo 183-8511

TOSHIBA ELEVATOR (SHENYANG) CO., LTD. Head Office: No.5 Feiyun Road Hunnan New District Shenyang, The People's Republic of China

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

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

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



602, 6th floor, C&B Square, Sangam Complex, 127, Andheri Kurla Road, Andheri (East), Mumbai-400 059, Maharashtra, India PHONE: +91-22-6191 1600 FAX: +91-22-6191 1649

https://www.toshibaelevators.in

C





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

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

TOSHIBA JOHNSON ELEVATORS (INDIA) PVT. LTD.

Head Office: 602, 6th Floor, C&B Square, Sangan Complex 127, Andheri Kurla Road. Andheri (East), Mumbai, 400059 India

H TOSHIBA ELEVATOR MIDDLE EAST (L.L.C.) Head Office: P. O. Box 16733, Dubai, UAE

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



### Toshiba Johnson Elevators (India) Private Limited