**3rd Edition** 

#### For EN standard

**Safety Cautions** 

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

#### **TOSHIBA**

Toshiba Elevator and Building Systems Corporation

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 Sep. 2021

GK-F208(1)-2109-2000-2109(TD)

# **TOSHIBA**

#### **TOSHIBA MACHINE-ROOM-LESS ELEVATORS**

STANDARD PASSENGER ELEVATOR

**SPACEL-**III

For EN standard

# 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-**

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

#### ■ Product Line-up

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

Scope of specification	Range of application
Passenger	8 ∼ 26 persons
Rated load	630 ∼ 2000 kg
Rated speed	1.0 ∼ 2.5 m/s <sup>®Note1</sup>

Note1: Applicable range Rated load 1600 or less for rated speed 2.5 m/s.

Note2: The above scope complies with EN81-20/50
standard.

	2.5										
Rated	2.0										
speed	1.75				SP	AC	EL	3111			
(m/s)	1.5/1.6										
	1.0										
Rated load (kg)		630	825	1000	1050	1150	1275	1350	1600	1800	2000
Туре		P8	P11	P13	P14	P15	P17	P18	P21	P24	P26

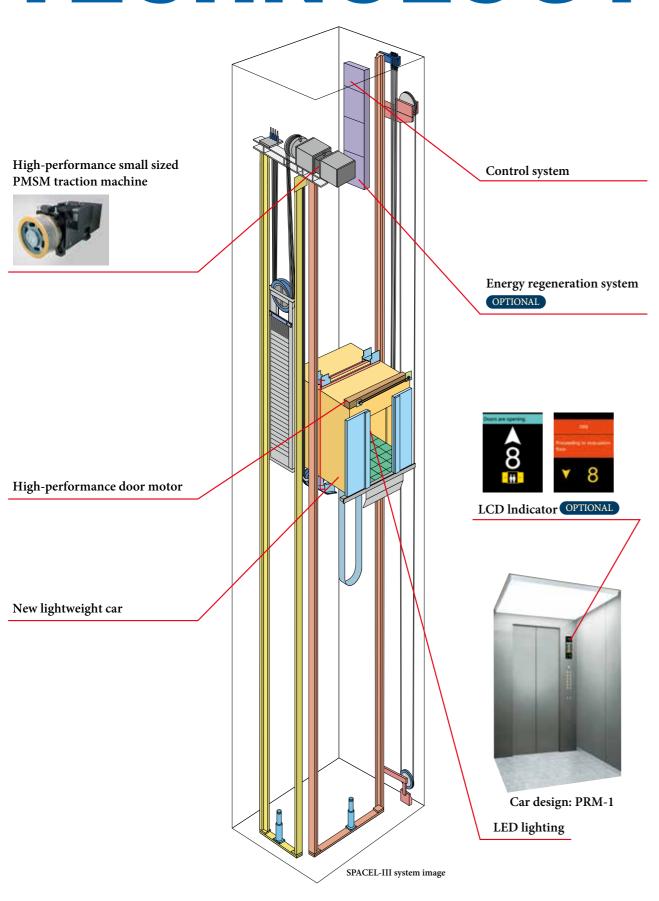
#### Contents

The Solutions Company Solutions Concept of ELCOSMO-III
Technology Technology Safety Function Energy Saving & Environment
Expansion of variation in car ceiling design-
Car Design OFFICE RESIDENCE HOTEL SHOP
Hall Design Hall Decoration Item Variation— Operation Systems—
Functions Hoistway Layout/ Specifications
Specifications

Works by Others...

....P.49

# **TECHNOLOGY**



# **New Technology**

#### High-performance Small Sized PMSM Traction Machine

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

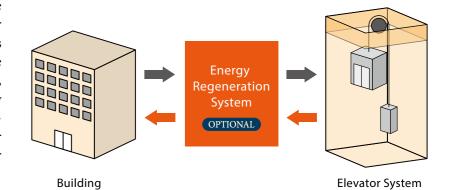


#### High Performance Control Systems

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

#### Energy Regeneration System OPTIONAL

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



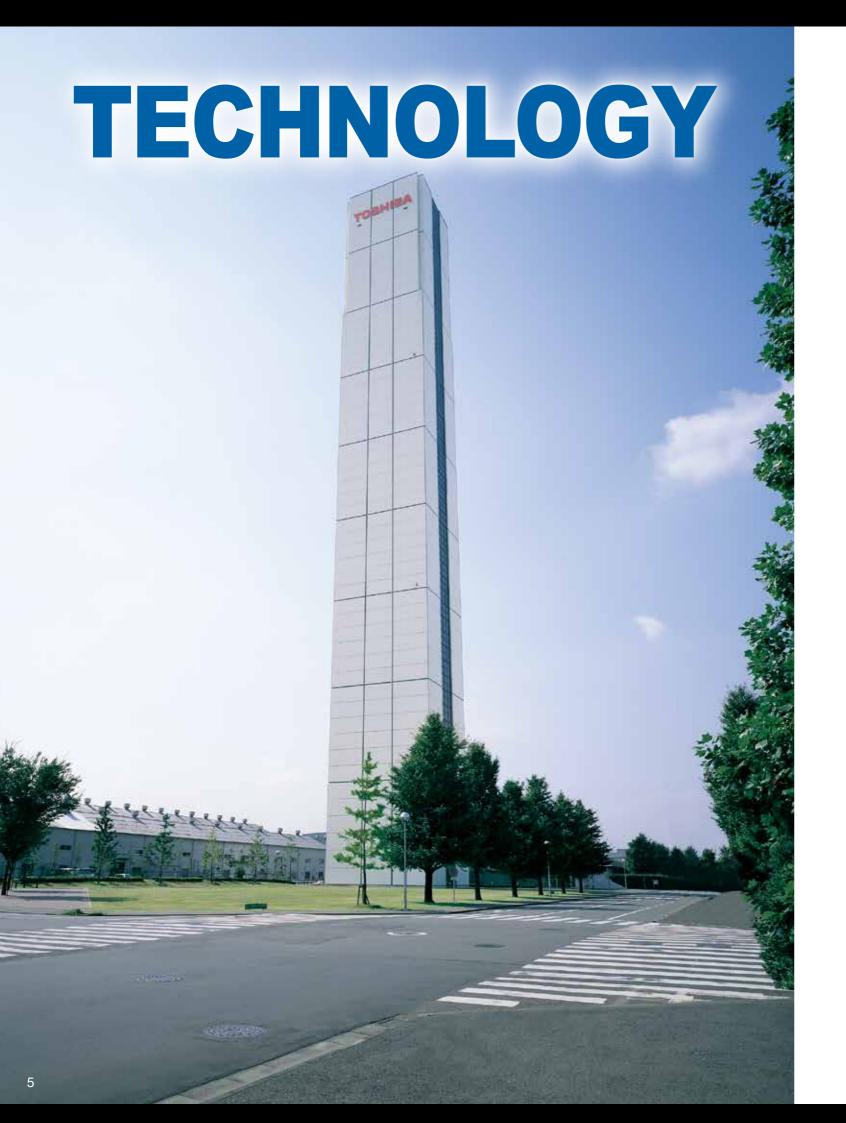
#### Use of Roller Guide OPTIONAL

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

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



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



# **Safety Function**

#### **Unintended Car Movement Protection**

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

#### Car Door Lock OPTIONAL

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

#### **Ascending Car Overspeed Protection**

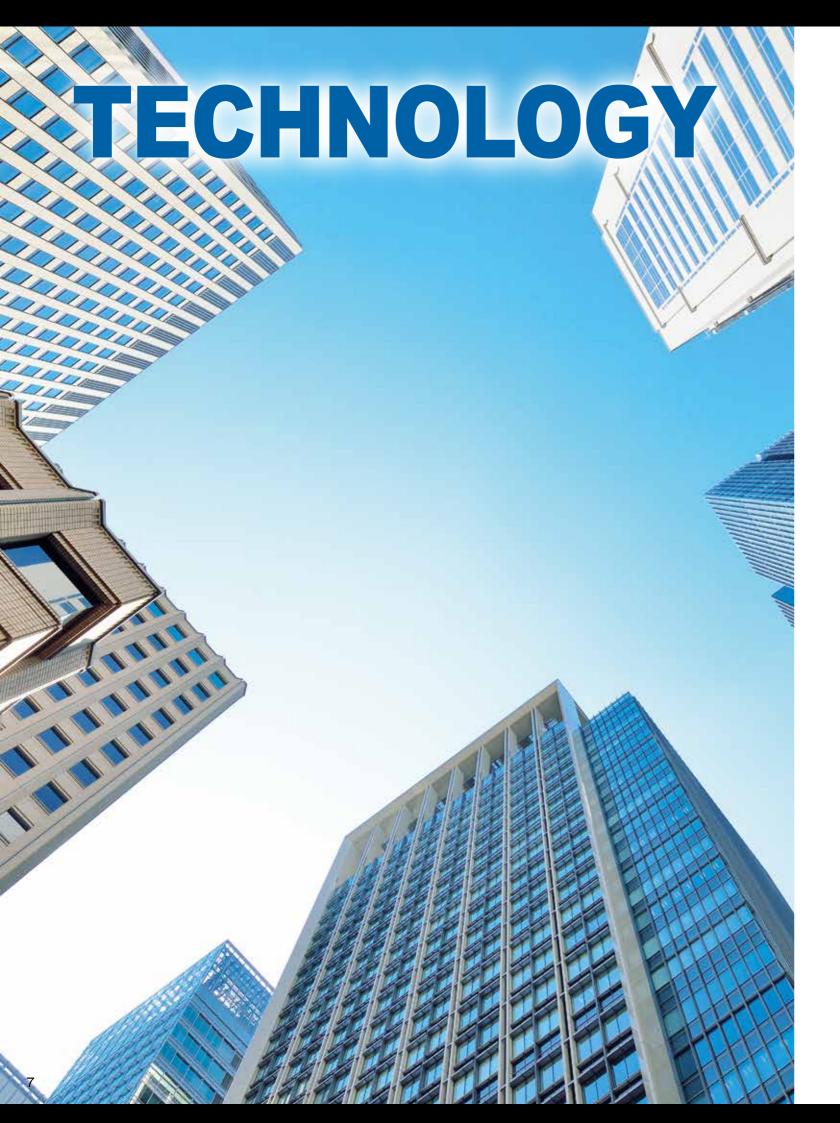
A device to prevents an elevator ascending to the elevator shaft top beyond the rated speed due to a device like an electromagnetic brake or control unit. It monitors the speed of the upper direction mechanically by a governor, then cut off the power supply and safety circuit by an overspeed detecting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

#### 2-in-1 door safety

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

Full open Full open (Getting off) (Getting on)

\* Image of Multi-beam Door Safety



# **Safety Function**

#### Automatic Landing in Power Failure

#### OPTIONAL

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

# 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.

#### Power failure detected.

0

The elevators sto

0

In each car, the "Power Failure" sign lights up and the in-car PA system instructs passengers with the following message: "Please get off this elevator as soon as the doors open."

0

The car goes to the nearest floor, and the doors open.

 $\bigcirc$ 

After a pre-set period, the doors are closed.

 $\mathbf{O}$ 

Normal operation resumes when power supply is back.

XAbove flowchart is representable example

#### Earthquake detected.

A seismic sensor triggers emergency operation.

0

In each car, the "Earthquake" emergency sign lights up and the in-car PA system instructs passengers with the following message: "Please get off this elevator as soon as the doors open."

0

The car goes to the nearest floor and the doors open.

0

After a pre-set period, the doors are closed.

XAbove flowchart is representable example

#### FII

0

Fire Alarm is actuated.

In each car, the "Fire" emergency sign lights up and the in-car PA system instructs passengers with the following message: "Please get off this elevator as soon as the

0

The car goes to the emergency exit floor, the doors open.

0

After a pre-set period, the doors are closed.

XAbove flowchart is representable example

# TECHNOLOGY



# **Energy Saving & Environment**

#### Toshiba Group and the SDGs

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

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

# SUSTAINABLE GALS DEVELOPMENT GALS

























#### Products and functions adopted to reduce power consumption

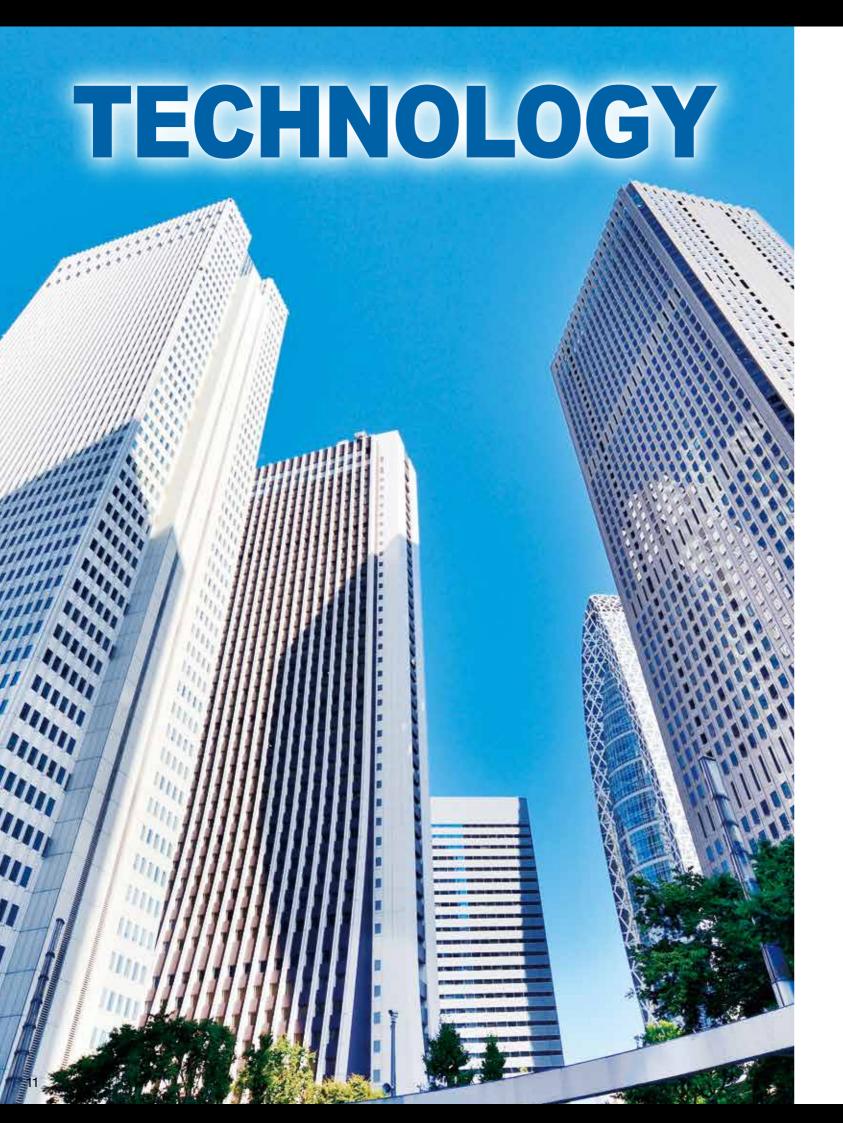
Suppress power consumption by reducing standby power, commercialization of the regenerative power function, adoption of LED lighting.

#### **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



# **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]

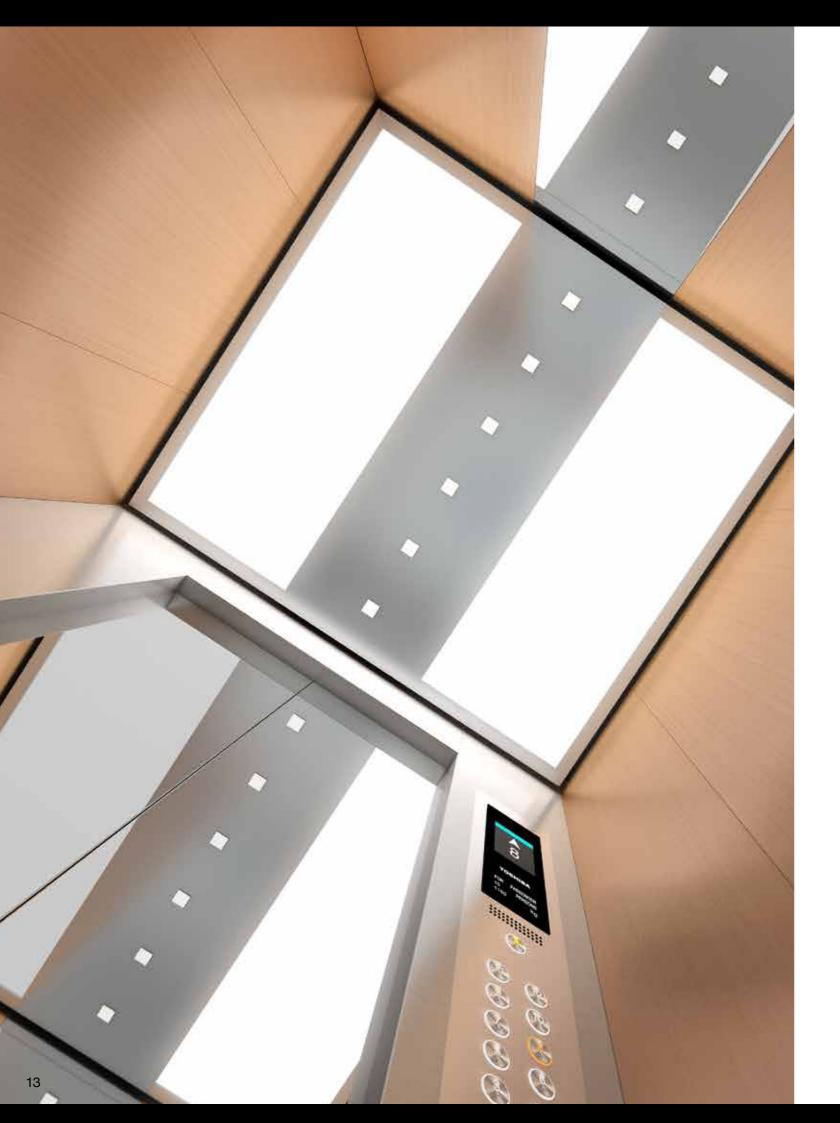
By changing the method of tying rope, the use of lead can be eliminated or reduced.

[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.



# OFFICE

#### OPTIONAL

# PRM-1

Front side view



Back side view



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

## Design variations

PRM-2



DLX-31



OPTIONAL DLX-27



SL-3



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

# RESIDENCE

OPTIONAL

# **DLX-24**

Front side view



Back side view



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

## Design variations



OPTIONAL TL-1



OPTIONAL DLX-21



OPTIONAL TL-S2



# HOTEL

OPTIONAL

DLX-31

Front side view



Back side view



Ceiling design	DLX-31			
Car side panel (Return panel)	Black color hairline finish stainless steel			
Car side panel (Side panel)	Black color hairline finish stainless steel and Mirror etching finish stainless steel			
Car side panel (Rear panel)	Black color hairline finish stainless steel and Mirror etching finish stainless steel			
Kick plate	Nil			
Car door	Mirror etching finish stainless steel			
Car floor	Marble (JQ-1012)			
COP	POP-G1L-84C			
Indicator	8.4 inch LCD			
Handrail	Nil			

### Design variations

DLX-24



DLX-25



OPTIONAL PRM-2



SL-1



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



OPTIONAL

DLX-22

Front side view



Back side view



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

## Design variations

DLX-21



DLX-28



OPTIONAL DLX-23



OPTIONAL DLC-1-1





## Hall Decoration Item Variation

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













Hall design 2

Hall design 5

Hall design 6

Hall design 7

# 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

HL-G1-O

Hall sill Hardened aluminium

Hall indicator Nil Hall button HB-G1K

Hall lantern



HL-G1-O



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 type jamb

Painted steel panel (1NS)

Hall door Painted steel panel (1NS)

Hall transam

Hardened aluminium Hall sill

HI-G34-O Hall indicator Hall button HB-G1K Hall lantern Nil









# Hall design 3 OPTIONAL

Hall jamb Wide type jamb

Painted steel panel (66YS)

Hall door Painted steel panel (66YS)

Hall transam

Hardened aluminium Hall sill

Hall indicator

Hall button HIB-G1NL Hall lantern HL-G1-O

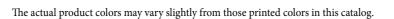


HIB-G1NL



HL-G1-O





# Hall design 4 OPTIONAL

Wide type jamb Hairline finish stainless steel Hall jamb

Hall door Painted steel panel (62YS)

Hall transam

Hall sill Hardened aluminium

Hall indicator /

HIB-G1L-43B

Hall button

Hall lantern







# Hall design 5 OPTIONAL

Hall jamb Wide type jamb

Painted steel panel (114PBS)

Hall door Painted steel panel (114PBS)

Hall transam

Hardened aluminium Hall sill

HI-G1-O Hall indicator Hall button HB-G1K Hall lantern









# Hall design 6 STANDARD

Hall jamb Narrow type jamb

Painted steel panel (77GS)

Hall door Painted steel panel (77GS)

HIB-G1N

Hall transam

Hall sill Hardened aluminium

Hall indicator / Hall button

Hall lantern







# Hall design 7 OPTIONAL

Hall jamb

Wide type jamb Hairline finish stainless steel

Hairline finish stainless steel Hall door

Hall transam

Hardened aluminium Hall sill

HI-G1L-57B Hall indicator Hall button HB-G1K

Hall lantern

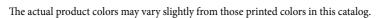














# Car Operation Panel: POP type

※Note: Applicable to Wide Car type models

#### Car Operation Panel





Button

10.4 inch LCD

KB-3 (Orange light)

#### PRM-1



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

#### Car Operation Panel









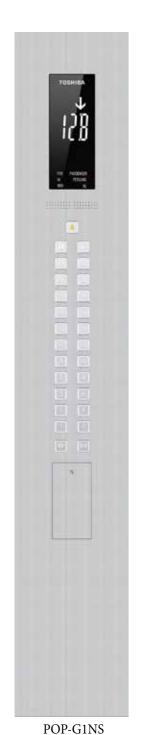
The actual product colors may vary slightly from those printed colors in this catalog.

OPTIONAL

# Car Operation Panel: POP type

\*Note: Applicable to Wide Car type models

#### Car Operation Panel



OPTIONAL



Button

7 inch LCD Segment

GS-3LB

#### DLX-31



# Car Operation Panel









GS-5B-WT







\* \* \*

# Car Operation Panel: FCOP type

\*Note: Applicable to Deep Car type models

#### Car Operation Panel



OPTIONAL





8.4 inch LCD

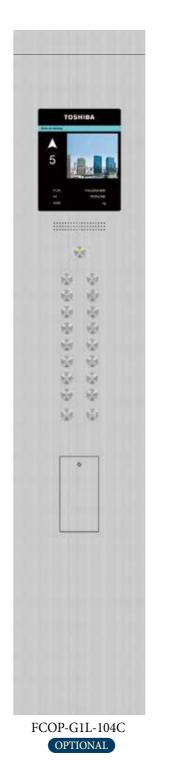
KB-7 (Orange light)

**DLX-24** 



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

#### Car Operation Panel







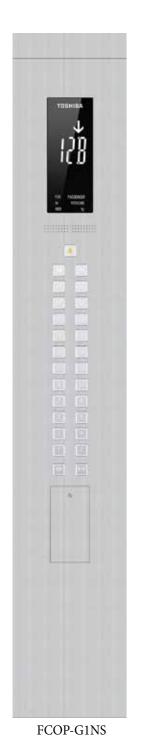


The actual product colors may vary slightly from those printed colors in this catalog.

# Car Operation Panel: FCOP type

※Note: Applicable to Deep Car type models

#### Car Operation Panel



OPTIONAL



Button

7 inch LCD Segment

GS-3LB

TL-S2



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

#### Car Operation Panel

FCOP-G1NL

STANDARD





Indicator



7 inch LCD Segment

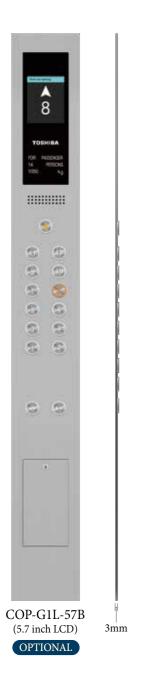
Button

GS-5B-WT

# Car Operation Panel: COP type

※Note: Applicable to all models

#### Car Operation Panel







KB-7 (Orange light)



#### Car Operation Panel







# Hall Indicator Button: HIB type

#### Hall Indicator Button



#### LCD Hall Indicator

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

4.3inch LCD display



4.3inch LCD segment

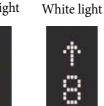


# HIB-G1K3 OPTIONAL HIB-G2K3 OPTIONAL

#### LED Dot Matrix

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

#### Orange light



† 8

Detail of display



#### Hall Indicator Button

#### 4.3 inch LCD segment





#### LED Dot Matrix



# Hall Indicator

#### Hall Indicator OPTIONAL



HI-G1-O



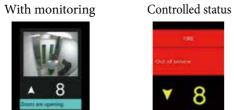


LED Dot matrix

#### LCD Hall Indicator OPTIONAL

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





Hall Lantern

#### Hall Lantern OPTIONAL

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









HL-G1-O (Orange light)

HL-G2-W (White light)

HL-G3-O (Orange light)

HL-G4-O (Orange light)

# Hall Button OPTIONAL





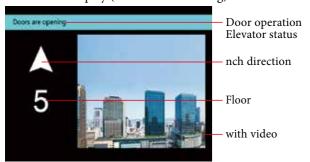
## Car Position Indicator

## Large LCD Indicator for Car Operation Panel OPTIONAL

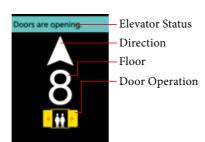
These 10.4 inch and 8.4 inch LCD indicators are capable of displaying in the elevator's various conditions (emergency operations, maintenance status) in large icons and letter in highly visible colors.

# 10.4 inch display for car operation panel

#### General car display (Without monitoring)



# 8.4 inch display for car operation panel



#### General car display (With monitoring)



A 8

Doors are opening.

A With monitoring



#### Display under controlled status





#### 5.7 inch display for car operation panel

General car display





With video



Controlled status



#### 7.0 inch LCD segment



#### LED Dot matrix



# **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	Δ				
	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	Δ				
	FLOORNAVI	Destination Control System	Δ				
	Independent operation	Lift car separated from group control operation and responde to car call only	Δ				
	Attendant operation	Operation by attendant by switch & button provided at service cabinet in COP	Δ				
	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.					
	Car inspection operation [INS]	During car inspection operation, the lift car will run at slowly speed without responding to hall call					
	Overload protection	The car overload buzzer will sound to prevent overloading and the doors will remain open					
	Fireman's operation (Note 2)	In the event of fire, when the Fireman's switch is activated, the designated lift will be ready for firemen to use	Δ				
	Fire emergency operation	In the event of fire, all lifts will return to the designated floor and stop operation to allow passengers to exit					
Safety	Emergency operation indication at COP	In the event of an emergency, the emergency operation status will be displayed at COP					
Functions	Power failure emergency operation	In the event of power failure, all lifts will return to the designated floor by emergency power supply from the building to allow passengers to exit					
	Automatic landing during power failure [TOSLANDER]	In the event of power failure, the lift will land at the nearest floor by emergency battery	Δ				
	Earthquake emergency operation	In the event of an earthquake, the elevator will detect the seismic signal and land at the nearest floor	Δ				
	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				
	2 in 1 door safety [Multi-beam door safety + Mechanical door safety]	A combination of multi-beam door safety and mechanical door safety	0				
	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by	Δ				
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.	Δ				

- Notes

  1: Not applicable to lift car with through door.

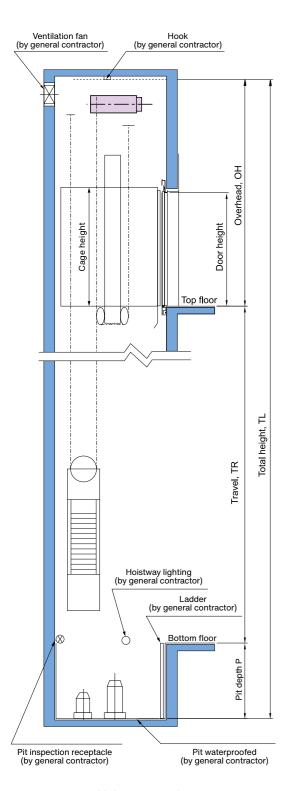
  2: Fire emergency operation and fireman service cannnot be applied simultaneously.

  3: Standard function for 2-car operation or 3-car operation.

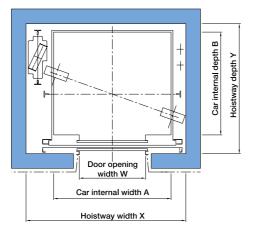
  4: Over 5 stops and in-car weight less than 150 kg.

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

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.	Δ					
	Full car bypass (Note 3)	When the lift car is full, the lift will bypass all hall calls and go straight to the designated floor						
	Car call cancellation	The floor call can be cancelled from the COP by pressing the floor button twice within 3 second	0					
	Nuisance call cancellation (Note 4)	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation	0					
	Door repeated opening	When an obstacle is detected, the door will repeatedly open and close until the obstacle is removed	0					
	Car indicator	Car indicator with the car operating panel	0					
	Adjustable door opening time	Adjusts the door opening time to reflect building usage	0					
	Door open extension button	Extends the door opening time	Δ					
	Car chime	A chime installed in the car ceiling will sound when the lift arrives	Δ					
	Hall chime	A chime installed in the lift lobby will sound when the lift arrives	Δ					
	Car full load indicator	"Full Load" will display on the hall indicator when the lift car is full						
	Hall lantern	The hall lantern will light up when the lift arrived						
Service Functions	Sub car operating panel	Additional car operating panel						
	Out of service indicator	"Out of Service" will display on the hall indicator when the lift car is faulty						
	Parking operation [Manual]	Parks the lift at designated floor by key-switch						
	Parking operation [Automatic]	Parks the lift at designated floor auotmatically						
	Car lighting automatic cut-off	When the lift is not in operation after a pre-determined period of time, the car light will turn off automatically						
	Ventilation fan automatic cut-off	When the lift is not in operation after a pre-determined period of time, the ventilation fan will turn off automatically	0					
	Door Open button lamp [For automatically cut-off car lighting]	The "Door Open" button will remain lit when the lift car light is turned off automatically	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	Δ					
	Card access system	Allows activation of the disnated floor call by IC card	Δ					
	Speech synthesizer	Announces car operations	Δ					
	Supervisory panel	Located in the building control room, etc. to monitor the status and control of each lift	Δ					



Traction machine Control panel/



Top floor hoistway plan

Typical floor hoistway plan (W, D)

Hoistway section

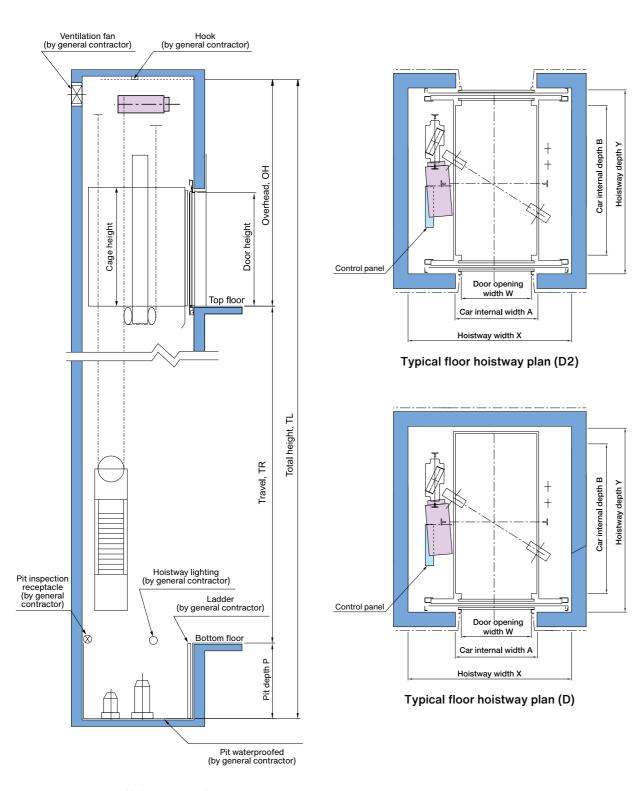
# **Specifications**

Туре		Nos.of	Capacity	Speed	Cage s Internal(		Door entrance (mm)								C/W	Hoistway size(mm)		m)	Motor Max. Capacity Service		Max. Travel								
		Person	(kg)	(m/s)	AxB	Height	Width	Height		X×Y	ОН	Р	(kW)	Stops(s)	(m)														
P8-CO60	w			1			800			2190 x 1670	3900	1600	3.6		80														
1 0-0000	**				'			900			2290 x 1670	0000	1000	0.0		- 00													
P8-CO96	w			1.6			800			2190 x 1670	4050	1700	5.8																
	$\dashv$						900			2290 x 1670 2190 x 1670				-															
P8-CO105	w	8	630	1.75	1400×1100	2300	900	2100	Side	2290 x 1670	4100	1750	6.3	40	100														
	$\dashv$						800			2190 x 1670																			
P8-CO120	w			2			900			2290 x 1670	4200	1800	7.2																
D0 004F0	w			2.5			800			2190 x 1670	4420	2250	9.0																
P8-CO150	VV			2.5			900			2290 x 1670	4420	2250	9.0																
P11-CO60	w			1			800			2200 x 1780	3900	1600	4.7		80														
0000						•			900			2300 x 1780																	
P11-C096	w	11																1.6			800 900			2200 x 1780 2300 x 1780	4050	1700	7.5		
	$\dashv$					2300	800		Side	2200 x 1780				40	100														
P11-CO105	w		825	1.75	1400×1350		900	2100		2300 x 1780	4100	1750	8.3																
B44 00400				2			800			2200 x 1780	4200	4000	9.5																
P11-CO120	w						900			2300 x 1780		1800																	
P11-CO150	۱۸/			2.5			800			2200 x 1780	4420	2250																	
1 11-00100	**			2.0			900			2300 x 1780	7720	2230																	
							900			2400 x 1800		4000																	
P13-CO60	W			1			1000 1100			2500 x 1800 2600 x 1800	3900	1600	5.7		80														
	$\dashv$						900			2400 x 1800																			
P13-CO96	w			1.6			1000			2500 x 1800	4050	1700	9.2																
							1100			2600 x 1800																			
							900			2400 x 1800																			
P13-CO105	w	13	1000	1.75	1600×1400	2300	1000	2100	Side	2500 x 1800	4100	1750	10.0	40															
	_						1100			2600 x 1800					100														
							900			2400 x 1800																			
P13-CO120	W			2	-		1000			2500 x 1800	4200	1800	11.4																
	$\dashv$						1100 900			2600 x 1800 2400 x 1800		2250																	
P13-CO150	w/			2.5			1000			2500 x 1800			14.3																
1 13-00150	**			2.0			1100			2600 x 1800	1720	2230	14.5																

W: Wide car

#### Note:

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



Hoistway section

# **Specifications**

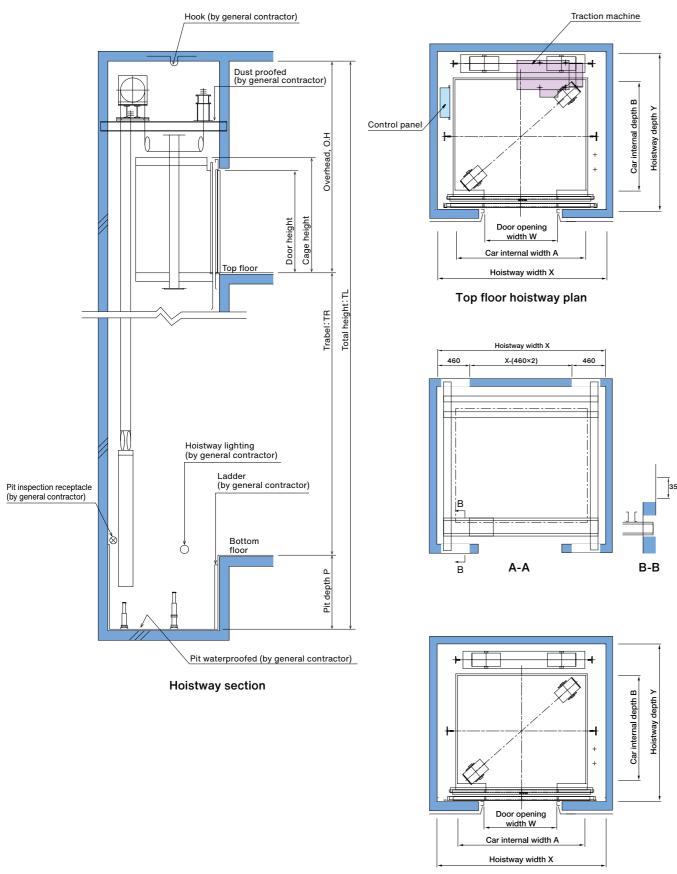
Type		Nos.of	Capacity	Speed	Cage s Internal(	size mm)		ntrance nm)	C/W	Hoistway	size(m	m)	Motor Capacity	Max. Service	Max. Travel	
		Person	(kg)	(m/s)	AxB	Height	Width	Height		X×Y	ОН	Р	(kW)	Stops(s)	(m)	
P8-CO60	_			4			800			1990 x 1760	3900	1600	3.6		80	
P8-CU60	D			1			900			2140 x 1760	3900	1000	3.0		00	
P8-CO96	D			1.6			800			1990 x 1760	4050	1700	5.8			
1 0 0000				1.0			900			2140 x 1760	.000		0.0			
P8-CO105	D	8	630	1.75	1100×1400	2300	800	2100	Side	1990 x 1760	4100	1750	6.3	40		
							900			2140 x 1760					100	
P8-CO120	D			2			900	-		1990 x 1760 2140 x 1760	4200	1800	7.2			
					-		800	-		1990 x 1760						
P8-CO150	D			2.5			900	1		2140 x 1760	4420	2250	9.0			
							800			2000 x 2060				40		
P11-CO60	D			1			900	]		2140 x 2060	3900	1600	4.7	40	80	
F11-C000	D2			'			800			2000 x 2170	3900	1600	4.7	*	80	
	DZ						900			2140 x 2170				^		
	l <sub>D</sub> l						800			2000 x 2060				40		
P11-CO96				1.6			900			2140 x 2060	4050	1700	7.5			
	D2						800			2000 x 2170				*		
							900 800			2140 x 2170 2000 x 2060						
	D						900	-		2140 x 2060				40		
P11-CO105	$\vdash$	11	825	1.75	1100×1700	2300	800	2100	Side	2000 x 2170	4100	1750	8.3			
	D2						900	1		2140 x 2170				*		
							800			2000 x 2060				40	100	
P11-CO120	D			_			900	1		2140 x 2060	4000	4000	0.5	40		
P11-C0120	D2			2			800			2000 x 2170	4200	1800	9.5	*		
	DZ							900			2140 x 2170				^	
	D						800			2000 x 2060	1			40		
P11-CO150				2.5			900			2140 x 2060	4420	2250	11.8			
	D2						800			2000 x 2170	1720			*		
							900			2140 x 2170 2140 x 2460						
	D						1000	-		2340 x 2460				40		
P14-C060				1			900			2140 x 2570	3900	1600	6.0		80	
	D2						1000	-		2340 x 2570				*		
							900	1		2140 x 2460				40		
P14-C096	D			1.6			1000	]		2340 x 2460	4050	1700	9.7	40		
F 14-CO90	D2			1.0			900			2140 x 2570	4050	1700	9.7	*		
	DZ						1000			2340 x 2570				^		
	D						900			2140 x 2460				40		
P14-CO105	_	14	1050	1.75	1100×2100	2300	1000	2100	Side	2340 x 2460	4100	1750	10.5			
	D2						900			2140 x 2570 2340 x 2570				*		
							900			2140 x 2460					100	
	D						1000	-		2340 x 2460				40		
P14-C0120	$\vdash$			2			900	1		2140 x 2570	4200	1800	12.0			
	D2						1000			2340 x 2570				*		
					1		900	1		2140 x 2460				40		
P14-CO150	D			2.5			1000	1		2340 x 2460	4420	2250	15.0	40		
1 14-00150	D2			2.5			900	]		2140 x 2570	4420	2230	15.0	*		
	ᄱ						1000		1	2340 x 2570				^^		

D: Deep car D2: Front and rear opening door 

\*\*Consult our local distributor

#### Note:

- The above table complies with EN81-20/50 standards.
- Please contact to our local distributor to check for other standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Hoistway dimensions take into account the error of up to 50 mm after the construction work.
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- 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.



Typical floor hoistway plan

# **Specifications**

Туре		Nos.of	Capacity	Speed	Cage size Internal(mm)		Door entrance (mm)		C/W	Hoistway size(mm)			Motor Capacity	Max. Service	Max. Travel
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Person	(kg)	(m/s)	AxB	Height	Width	Height		X×Y	ОН	Р	(kW)	Stops(s)	(m)
P15-CO60	w			1	1800×1500	2300	1000		100 Rear	2450 x 2170	4700	1380	7.0	48	80
1 10 0000	**						1100			2550 x 2170		1000	7.0		
P15-CO96	w	15	1150	1.6			1000			2450 x 2170	4850	1450	12.0		
							1100			2550 x 2170					
P15-CO105	w			1.75			1000	2100		2450 x 2170	4950 5000 5300	1480 1600 2000	12.0		
							1100			2550 x 2170					100
P15-CO120	w						1000			2450 x 2170			14.0		
				_			1100			2550 x 2170					
P15-CO150	w			2.5			1000			2450 x 2170					
D40 0000							1100			2550 x 2170	4700	4000	0.0		- 00
P18-C060	W		1350	1	2000×1500	2300	1100	2100	Rear		5000 5300	1380	8.0	48	80
P18-C096	W	40		1.6						0050 0470		1450	14.0		
P18-CO105	-	18		1.75						2650 x 2170		1480 1600	14.0 16.0		100
P18-CO120 P18-CO150	-			2.5								2000	20.0		
P16-CO150	VV			2.5			1100			2700 x 2370		2000	20.0		
P21-CO60	W		1600	1	2000×1700	2300	1200			2750 x 2370	4700	1380	10.0		80
				1.6			1100	2100 Rea		2700 x 2370	4850		16.0		
P21-CO96	W						1200			2750 x 2370		1450			
				1.75			1100			2700 x 2370	4950	1480	18.0		
P21-CO105	W	21					1200		Rear	2750 x 2370					
							1100			2700 x 2370					100
P21-CO120	W			2			1200			2750 x 2370	5000	1600	20.0		
B04 00450				2.5			1100			2700 x 2370	5300	2000	24.0		
P21-CO150	W						1200			2750 x 2370					
P24-CO60	w	24	1800	1	2100×1750	2300	1200	2100	Rear		4700	1380	12.0		80
P24-CO96	W			1.6						4850	1450	18.0	1		
P24-CO105	W			1.75						2800 x 2420	00 x 2420 4950	1480	20.0	48	100
P24-CO120	W			2							5000	1600	22.0		
P26-CO60	W	26	2000 -	1	2100×1950	2300	1200	2100	Rear	2800 x 2620 4850 4950	4700	1380	12.0		80
P26-CO96	W			1.6							4850	1450	20.0	48	100
P26-CO105	W			1.75							4950	1480	22.0		
P26-CO120	W			2							5000	1600	24.0		

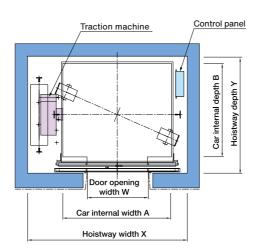
W: Wide car

#### Note:

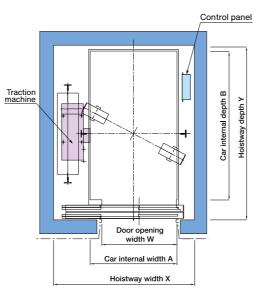
- The above table complies with EN81-20/50 standards.
- Please contact to our local distributor to check for other standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Hoistway dimensions take into account the error of up to 50 mm after the construction work.
- The hoistway dimensions in chart are the minimum requirement.
- The hoistway structure wall must be 150mm thick or more.
- Piping, wiring and cables which is not relevant to elevator are prohibited inside the hoistway.

  Old releasing the about it for about a relevant to elevator are prohibited inside the hoistway.
- OH value in the chart is for standard ceiling. As for the non-standard cars, please consult our local distributor.
  If the size of the hoistway is greater than the above sizes, OH will be larger. Please consult our local distributor.
- If the location of Power source panel, Control panel and Electric power supply are changed. Please consult our local distributor.

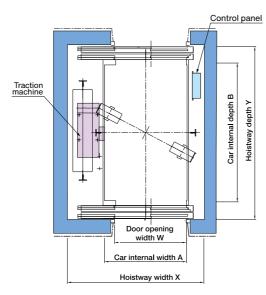
# Hook (by general contractor) Hoistway lighting (by general contractor) Ladder (by general contractor) Pit waterproofed (by general contractor) Hoistway section



Typical floor hoistway plan (W)



Typical floor hoistway plan (D)



Typical floor hoistway plan (D2)

# **Specifications**

<b>.</b>		Nos.of	Capacity	Speed	Cage s Internal(			ntrance im)	0.005	Hoistway	size(m	m)	Motor	Max.	Max.
Туре		Person	(kg)	(m/s)	AxB	Height	Width	Height	C/W	X×Y	ОН	Р	Capacity (kW)	Service Stops(s)	Travel (m)
					AAD	ricigni	1000	Ticignt		2750 x 1870	OH	'	,	1 ( /	
P15-C060	W			1			1100			2850 x 1870	4350	1350	7.0		80
					-		1000			2750 x 1870					
P15-CO96	W			1.6			1100			2850 x 1870	4500	1450	12.0		
	$\vdash$						1000			2750 x 1870					
P15-CO105	W	15	1150	1.75	1800×1500	2300	1100	2100	Side	2850 x 1870	4550	1500	12.0	48	
	$\vdash$				-		1000			2750 x 1870					100
P15-CO120	W			2			1100			2850 x 1870	4650	1900	14.0		
					-		1000			2750 x 1870					
P15-CO150	W			2.5			1100			2850 x 1870	4950	2100	18.0		
P17-C060	w			1						2000 X 1010	4350	1350	8.0		80
P17-C096	W			1.6							4500	1450	12.0		
P17-CO105	w	17	1275	1.75	2000×1400	2300	1100	2100	Side	2950 x 1830	4550	1500	14.0	48	
P17-C0120	w	.,	12.0	2	200000	2000		2.00	Oldo	2000 X 1000	4650	1900	16.0		100
P17-CO150	w			2.5							4950	2100	20.0		
P18-C060	w			1							4350	1350	8.0		80
P18-C096	W			1.6	1						4500	1450	14.0		
P18-C0105	W	18	1350	1.75	2000×1500	2300	1100	2100	Side	2950 x 1870	4550	1500	14.0	48	
P18-CO120	W	.0		2	2000 .000	2000		2.00	0.00		4650	1900	16.0		100
P18-CO150	W			2.5							4950	2100	20.0	1	
							1100			2980 x 2110					
P21-CO60	W			1			1200			3080 x 2110	4350	1400	10.0		80
				4.0			1100			2980 x 2110	4500				
P21-CO96	W			1.6			1200			3080 x 2110	4500	1500	16.0		
		04	4000	4.75	0000.4700	0000	1100	0400	0.1	2980 x 2110	4550				
P21-CO105	W	21	1600	1.75	2000×1700	2300	1200	2100	Side	3080 x 2110	4550	1550	18.0	48	
	Ī			_			1100			2980 x 2110	4050				100
P21-CO120	W			2			1200			3080 x 2110	4650	1700	20.0		
				0.5			1100			2980 x 2110	,,,,,				
P21-CO150	W			2.5			1200			3080 x 2110	4950	2150	24.0		
P24-C060	w			1							4350	1400	12.0		80
P24-CO96	w			1.6							4500	1500	18.0		
P24-C0105	w	24	1800	1.75	2100×1750	2300	1200	2100	Side	3030 x 2130	4550	1550	20.0	48	100
P24-CO120	w			2							4650	1700	22.0	<u>1                                    </u>	
P26-CO60	w			1							4350	1400	12.0		80
P26-CO96	w			1.6					<b>.</b>	0000 0040	4500	1500	20.0		
P26-CO105	w	26	2000	1.75	2100×1950	2300	1200	2100	Side	3030 x 2310	4550	1550	22.0	48	100
P26-CO120	W			2	1						4650	1700	24.0		
P17-2S60	D			1							4350	1350	8.0		80
P17-2S96	D			1.6	]						4500	1450	12.0		
P17-2S105	D	17	1275	1.75	1200×2300	2300	1100	2100	Side	2180 x 2760	4550	1500	14.0	48	100
P17-2S120	D			2							4650	1900	16.0		100
P17-2S150	D			2.5							4950	2100	20.0		
P17-2S60	D2			1							4350	1350	8.0		80
P17-2S96	D2			1.6							4500	1450	12.0		
P17-2S105	D2	17	1275	1.75	1200×2300	2300	1100	2100	Side	2180 x 2970	4550	1500	14.0	*	100
P17-2S120	D2			2							4650	1900	16.0		
P17-2S150	D2			2.5							4950	2100	20.0		
P21-2S60	D			1							4350	1400	10.0	]	80
P21-2S96	D			1.6	]						4500	1500	16.0		
P21-2S105	D	21	1600	1.75	1400×2400	2300	1200	2100	Side	2380 x 2860	4550	1550	18.0	48	100
P21-2S120	D			2	]						4650	1700	20.0		100
P21-2S150	D			2.5							4950	2150	24.0		
P21-2S60	D2			1							4350	1400	10.0		80
P21-2S96	D2			1.6	]						4500	1500	16.0		
D04 0040E	D2	21	1600	1.75	1400×2400	2300	1200	2100	Side	2380 x 3070	4550	1550	18.0	*	100
P21-2S105	-			_		1	I	1	l .	I	1000	1700	20.0	1	1 .00
P21-2S105 P21-2S120	D2			2.5							4650	2150	20.0		

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

#### Note:

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

   OH vill be leave a provide and 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:

#### **►** 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.

#### Memo

# **Global Network**

Head office / Manufacturing baseHead office

A TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

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Toshiba Elevator (Vietnam) Limited Liability Company Head Office: No. 36, Street 96, Quarter 2, Thanh My Loi Ward, Thu Duc City, Ho Chi Minh City, Vietnam Together with our global partners, we connect with Asia and then the world, through our technology and our spirit.

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

[For more information]

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