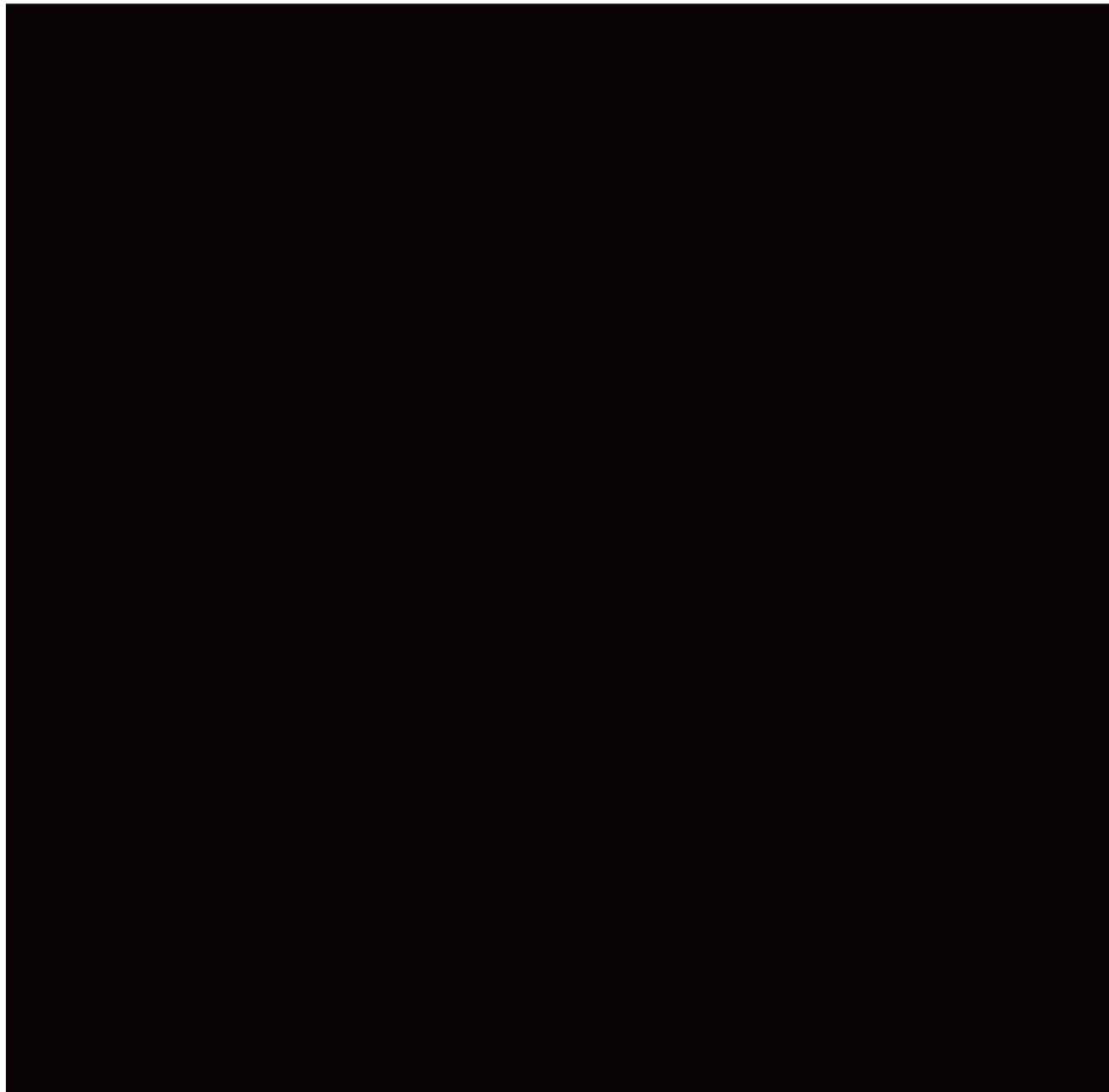
TOSHIBA

TOSHIBA HIGH SPEED ELEVATORS

New ELBRIGHT



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

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

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TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

THE SOLUTIONS

COMPANY SOLUTIONS

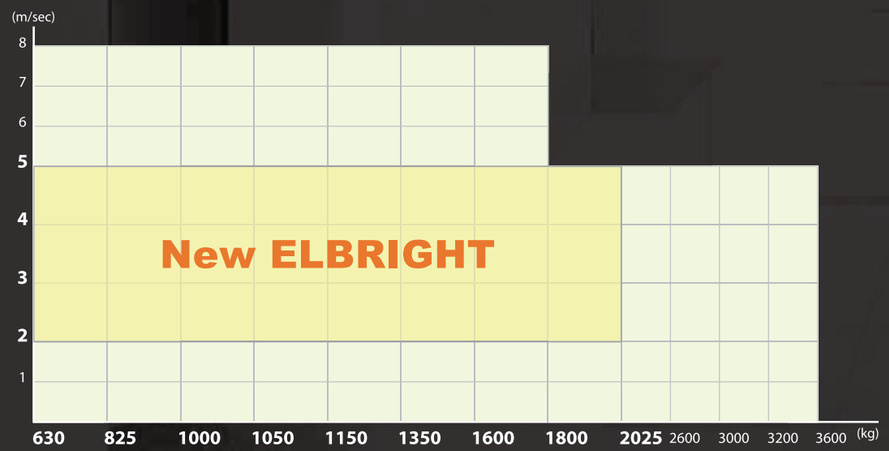
Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment, maintenance and services in order to provide clients with the highest quality products and services.

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

New ELBRIGHT
TOSHIBA HIGH SPEED ELEVATORS

A new concept in high-speed elevators.

Toshiba never stops introducing the latest technologies and refining its high-speed elevator expertise.
Toshiba proves this again with the New ELBRIGHT : a new elevator for a new age.
Toshiba engineering has combined to produce the world's first inverter drive controlled high-speed elevator, with the high-efficiency control, energy efficiency, and quiet operation today's society demands.



Technology

Toshiba's leading technology has developed a high-speed elevator with a slimline control panel and a compact and lightweight traction machine. We will provide rapid, high performance, high-quality elevator products saving labor, space and power.

Safety

We will offer safety, security, and comfort with customer's needs by providing optional functions for safety control devices such as door open running prevention and door sensors, and optional control operation in the event of a power outage and emergency at earthquakes and fires.

Energy Saving & Environment

Reducing standby power by a new control device, commercializing the regenerative power function, and suppressing the power consumption by the adopting of LED lighting.
We are promoting environmentally friendly products such as eliminating lead and mercury and other hazardous substances from the product and equipment.

Index

TOSHIBA ELEVATOR R&D TOWER

Technology

A high-efficiency traction machine and advanced inverter drive controlled are expanding the potential of New ELBRIGHT

The New ELBRIGHT was developed to be the best an possible elevator, both for the buildings in which it is installed and for those who ride it. Every part of the elevator uses Toshiba's leading technologies; from the traction machine and control system to the cars, doors, and drive system. The New ELBRIGHT will boost the value of the high-speed elevator immensely.

Compact and energy-efficiency via the Permanent Magnet Synchronous Motor

The New ELBRIGHT employs a gearless traction machine using a permanent magnet synchronous motor (PMSM), in place of the conventional induction motor. The PMSM uses a permanent magnet with a high magnetic flux density. This allows a more compact and lightweight traction machine. Furthermore, establishing a permanent magnetic flux eliminates the need to release magnetizing current. This and other advantages pave the way for highly efficient control, which helps to save energy.

A compact slimline control panel realizes space-saving in machine room

The New ELBRIGHT's control system use small inverter unit. It also incorporates peripheral equipment, integrated multifunctional digital line, a compact control panel device and efficiently implemented layout for a slimline control panel. The well thought-out control panel design also reduces working space for maintenance, which frees up space for the machine room.

New control systems

A high performance CPU is employed for the advanced and newly developed control system. This control system cuts the level of standby electricity required and promotes an automatic shutoff system for lighting and ventilation to further boost power savings.

Safety

Unintended Car Movement Protection (Optional)

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

Car Door Lock (Optional)

Every car door shall be mechanically locked by at least 7mm such that it can only be opened in the unlocking zone of a landing. The lift operation shall automechanically depend on the locking of the car door. This locking shall be proved by an electrical safety device to confirm the horizontal distance between the well wall and the sill or entrance frame of the car is within150mm.

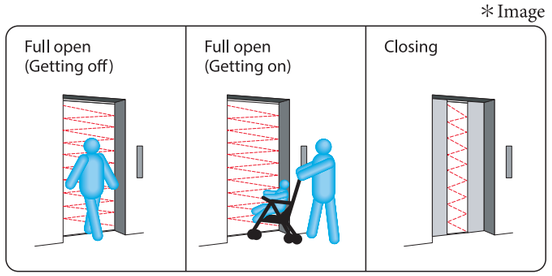
Ascending Car Overspeed Protection

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

Multi-beam Door Safety (Optional)

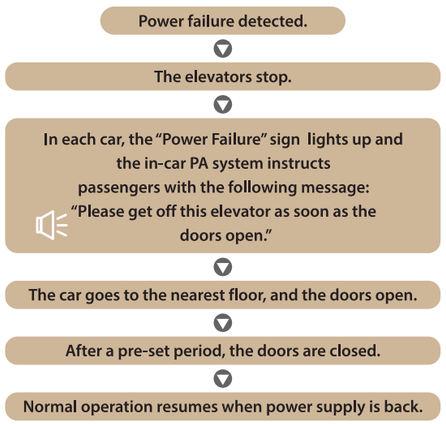
The photoelectric cell detects passengers in the doorway and reopens closing doors.

＊Image



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.)

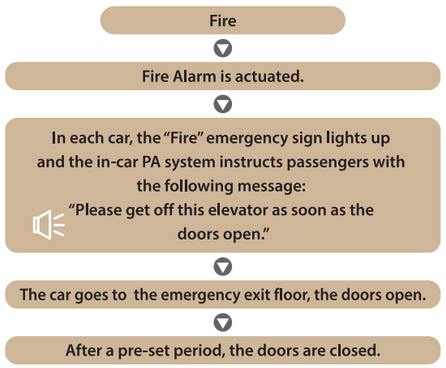


Earthquake Emergency Operation (Optional)

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.



Energy Saving & Environment

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.

PRM-1

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)

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.

Car Design

Please select according to the image and the feature of the building.
It features a design pursuing comfort and functionality.

RESIDENCE

OFFICE

HOTEL

SHOP

Car Design

RESIDENCE

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-22 / DX-22

OPTIONAL

TL-1

OPTIONAL

DLX-21 / DX-21

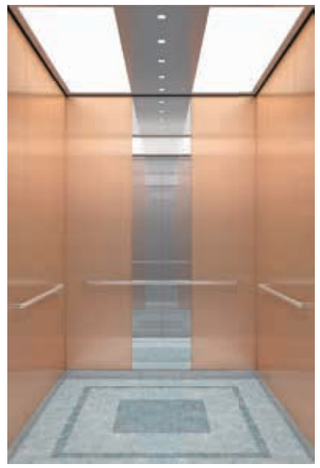
OPTIONAL

SL-V2

OPTIONAL

DLX-24 / DX-24

Front side view



Back side view

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

Car Design

OFFICE

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

PRM-2

OPTIONAL

DLX-22 / DX-22

OPTIONAL

DLX-23 / DX-23

OPTIONAL

DLX-24 / DX-24

OPTIONAL

PRM-1

Front side view

Back side view

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

Car Design

HOTEL

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

PRM-1

OPTIONAL

DLX-25 / DX-25

OPTIONAL

PRM-2

STANDARD

SL-1

OPTIONAL

DLX-24 / DX-24

Front side view

Back side view

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

Car Design

SHOP

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 / DX-24

OPTIONAL

TL-1

OPTIONAL

PRM-1

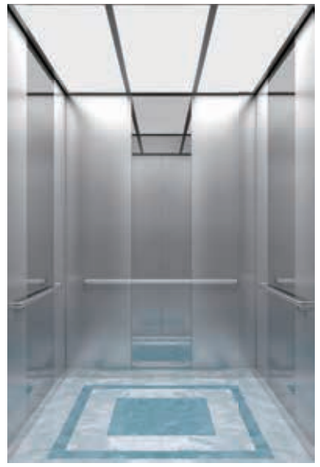
STANDARD

SL-1

OPTIONAL

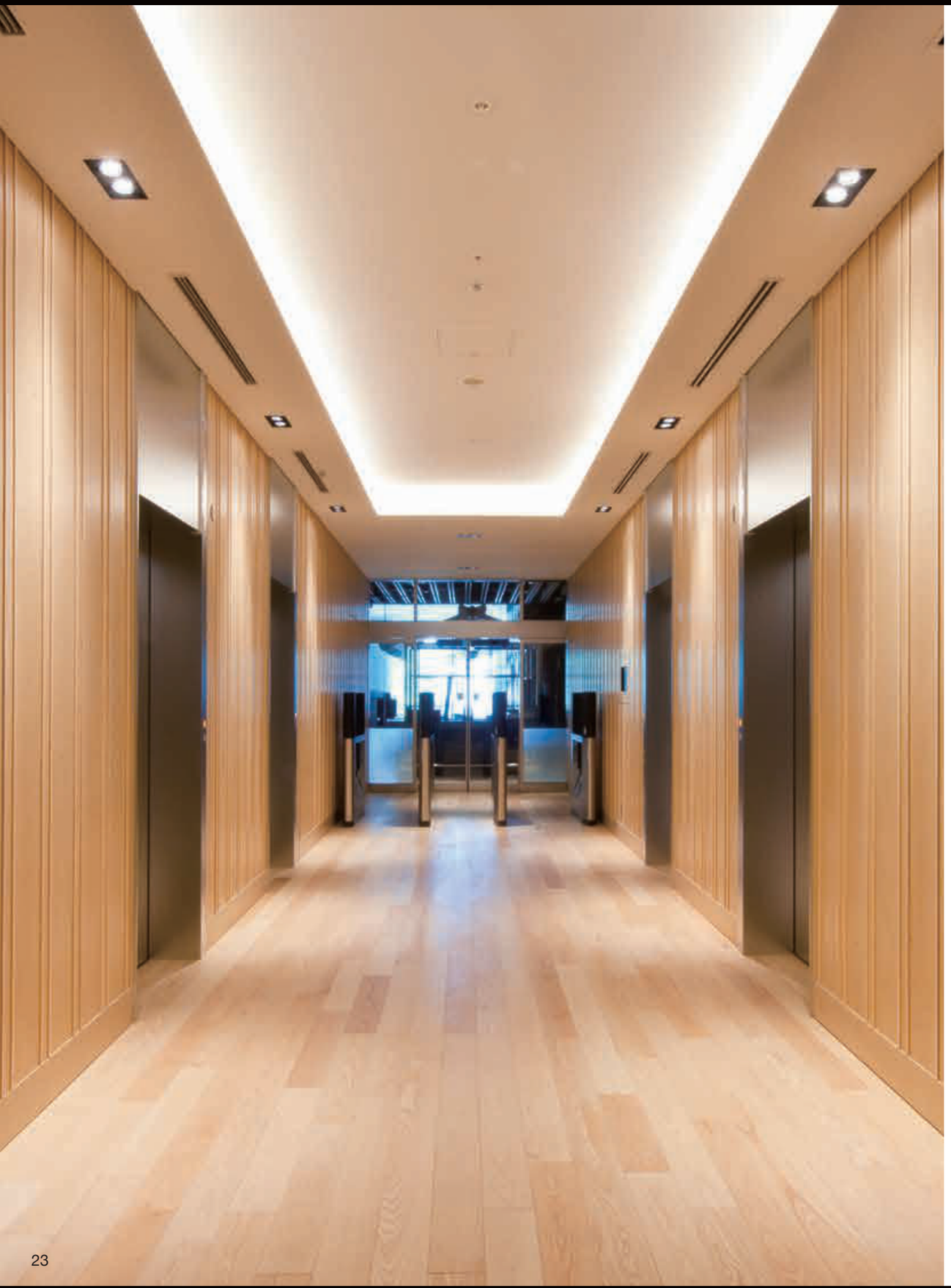
DLX-23 / DX-23

Front side view



Back side view

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



Hall Design

Design variations

The publication of this page is an example of design.
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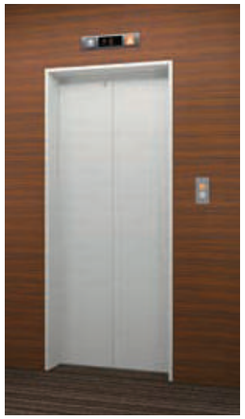



Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

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

Hall Design

OPTIONAL

Design plan 1

The publication of this page is an example of design.
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Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

OPTIONAL

Design plan 2

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

Hall Design

OPTIONAL

Design plan 3

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

OPTIONAL

Design plan 4

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

Hall Design

OPTIONAL

Design plan 5

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

STANDARD

Design plan 6

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Functions

○ : STANDARD △ : OPTIONAL

Functions	Notes	Descriptions	
Operations	Simplex selective-collective fully automatic operation	Fully automatic operation by hall and car calls for single car	○
	Duplex selective collective fully automatic operation (Note 1)	Fully automatic operation for 2 cars in the same group	△
	Group supervisory control system	For supervisory operation of groups of more than 3 cars	△
	Independent operation	Lift car separated from group control operation and responding to car call only	△
	Attendant operation	Operation by attendant by switch & button provided at service cabinet in COP	△
Safety Functions	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	○
	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 without responding to hall call	○
	Overload protection	The car overload buzzer will sound to prevent overloading and the doors will remain open	○
	Door open when the lift car is overloaded	The door will re-open when overload is detected even if though it is closing	○
	Fireman's operation	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	△
	Power failure emergency operation	In the event of power failure, all lifts will return to the designated floor by emergency power supply from the building to allow passengers to exit	△
	Automatic landing during power failure (TOSLANDER)	In the event of power failure, the lift will land at the nearest floor by emergency battery	△
	Earthquake emergency operation	In the event of an earthquake, the elevator will detect the seismic signal and land at the nearest floor	△
	In-car emergency lamp (self-charging)	In the event of power failure, the in-car emergency lamp will be activated	○
	Emergency call button	A button for passenger to make an emergency call when they are trapped inside the lift	○
	Emergency operation indication at COP	In the event of an emergency, the emergency operation status will be displayed at COP	○
	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	△
	Door nudging feature with buzzer	A buzzer sounds and the doors slowly close when they have remained open beyond the preset period	△
Service Functions	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by	△
	Service floor cut-off selection	Installing 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.	△
	Service floor cut-off selection (Soft setting type)	This is of the free setting type, where the elevator superintendent for every building is free to set and modify service cut-off floors even after start in use. This is the most appropriate type for such office buildings as their tenants are not yet fixed before completion.	△

Note 1 : Not applicable to lift car with through door
2 : ＞5 floors and car weight ＜150kg
3 : For details of interface for building management system, please consult our local distributor.

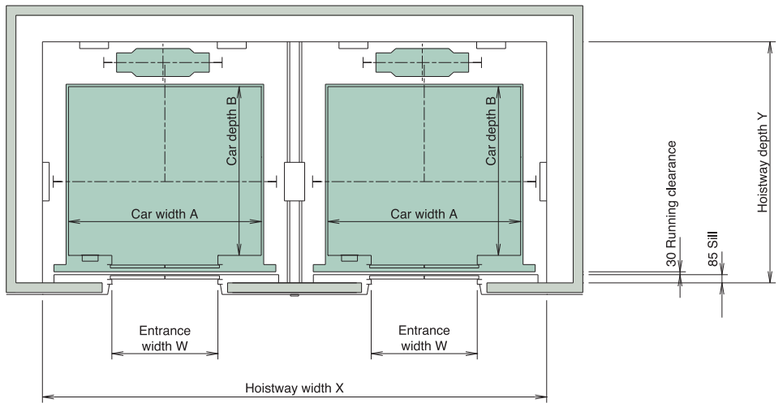
○ : STANDARD △ : OPTIONAL

Functions	Notes	Descriptions	
Service Functions	Full car bypass (Note 2)	When the lift car is full, the lift will bypass all hall calls and go straight to the designated floor	△
	Car call cancellation	The floor call can be cancelled from the COP by pressing the floor button twice within 3 second	○
	Nuisance call cancellation	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation	○
	Repeated door opening	When an obstacle is detected, the door will repeatedly open and close repeatedly pending removal of the obstacle	○
	Door nudging	Push and hold the door close button for 2 seconds or keep the door completely opened for 15 seconds rectify the situation when the electric door safety malfunctions.	△
	Adjustable door opening time	Adjusts the door opening time to reflect building usage	○
	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	△
	Hall lantern	The hall lantern will light up when the lift arrived	△
	Sub-car operating panel for single entrance	Additional car operating panel	△
	Sub-car operating panel for double entrance		○
	Car full load indicator	Full Load will display on the hall indicator when the lift car is full	△
	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 the designated floor by the key-switch	△
	Parking operation (automatic)	Parks the lift at the designated floor automatically	△
	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	○
	Door Open button lamp (for automatically cut-off car lighting)	The "Door Open" button will remain lit when the lift car light is turned off automatically	○
	Nuisance call cancellation at reversal	Cancel intentionally registered nuisance calls automatically in the reversal travel direction	○
	Multi-channel intercom	The intercom system can communicate with multi-stations simultaneously	○
	Designated floor stop operation	Automatically stops the lift at the designated floor for crime prevention purposes	△
	Card access system	Allows activation of the designated floor call by IC card ※ Card Access System by others	△
	Speech synthesizer	Announces car operations	△
	Supervisory panel (Note 3)	Located in the building control room, etc. to monitor the status and control of each lift	△

Installation plan / Power source plan

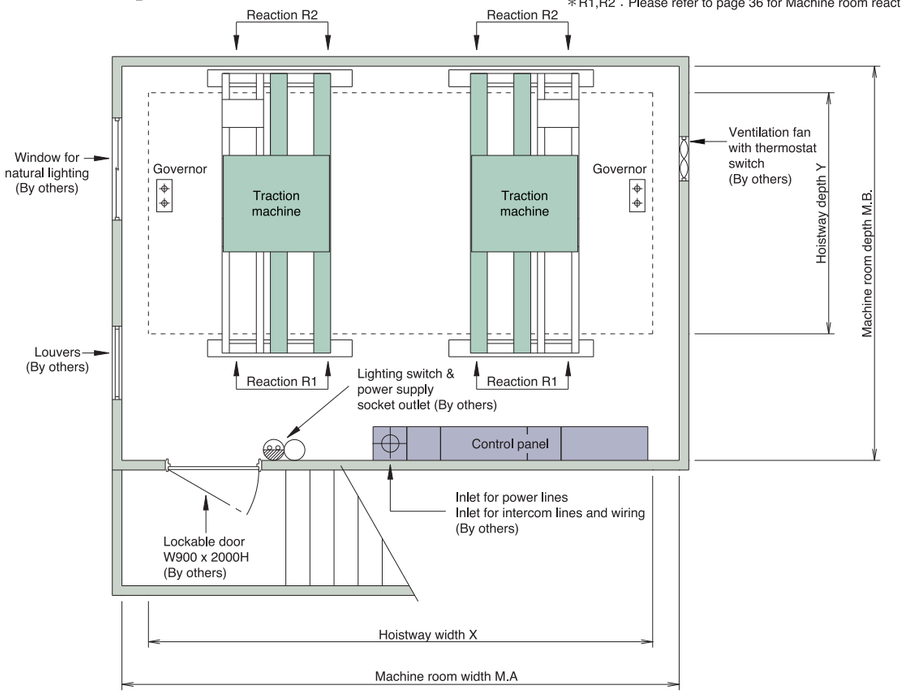
■ Installation plan　An installation diagram for 8 to 24 passenger

▶ Hoistway plan



▶ Machine room plan

＊R1,R2：Please refer to page 36 for Machine room reaction load



▶ Hoistway shaft and machine room dimensions

Application model	Rated speed (m/min)	Capacity (persons)	Loading capacity (kg)	Entrance (mm)		Internal car dimensions (mm) A × B	Hoistway shaft (mm)		Machine room (mm)	
				Width	Height		Single shaft* X × Y	Dual shaft** X × Y	Single shaft* MA × MB	Dual shaft** MA × MB
P8	120 150 180 210 240 300	8	630	800	2100	1400×1100	1940×1885	4030×1885	2340×3350	4500×3350
P12		12	900	900	2100	1600×1350	2100×2135	4350×2135	2540×3600	4830×3600
P13		13	1000	900	2100	1600×1500	2100×2285	4350×2285	2540×3750	4830×3750
P15		15	1150	1000	2100	1800×1500	2300×2285	4750×2285	2740×3750	5230×3750
P18		18	1350	1100	2100	2000×1500	2500×2285	5150×2285	2940×3750	5630×3750
P21		21	1600	1100	2100	2000×1700	2500×2485	5150×2485	2940×3950	5630×3950
P24		24	1800	1200	2100	2100×1750	2700×2535	5550×2535	3040×4000	5830×4000
P27		27	2025	1200	2100	2100×1950	2700×2735	5550×2735	3040×4200	5830×4200

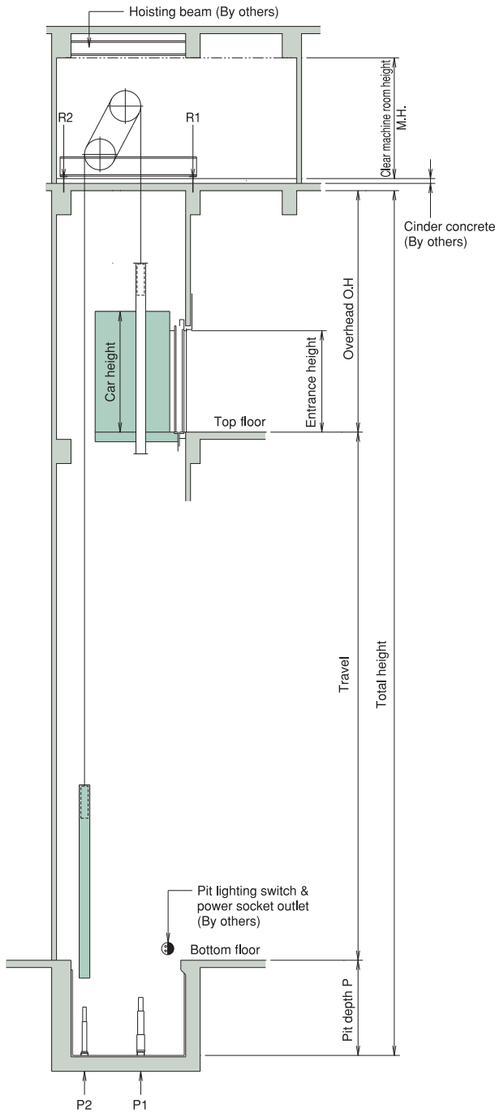
▶ Basic specifications

Item	Contents	Remarks
Application	For passenger	
Control system	Variable voltage variable frequency control system (Gearless)	
Operation function	Selective-collective full automatic operation	
Power supply	For powers: Three phase AC. 380V-50Hz 415V-50Hz	
	For lightings: Single phase AC. 220V-50Hz 240V-50Hz	
Roping	2:1D (Two to one double wrap)	
Maximum number of floors	64stops	In case of a double entrance elevator, 128 numbers of entrance
Maximum travel	200m	
Landing accuracy	±5mm	
Entrance direction	Single entrance	Double entrance applicable
Machine room location	Hoistway top	
Control panel type	CL600	
Door type	CO, 2S (DBL-6)	
Minimum floor height	Entrance height +Height of door panel extension +450mm	

Installation plan / Power source plan

■ Hoistway section

▶ Hoistway section <Standard type>



▶ Hoistway shaft & Machine room dimensions

Rated speed (m/min)	Overhead O.H (mm)		Pit depth P (mm)	Clear machine room height M.H(mm)
	P8,P12	Other		
120	5950	5350	2150	2250
150	6150	5550	2450	
180	6450	5850	2750	
210	6850	6250	3250	
240	7450	6850	3850	
300	8400	7800	4050	

Note : The above data table of "O.H" dimensions is based Cage height : 2500mm.

* Please contact our local distributor to check for other conditions.

▶ Reaction and load

Type	Rated speed (m/min)	Machine room reaction load (kN)		Pit reaction load (kN)	
		R1 (Cage)	R2 (C/W)	P1 (Cage)	P2 (C/W)
P8-CO	120	60.9	79.5	107.6	101.3
	150			107.6	101.3
	180			107.6	101.3
	210			108.4	102.1
	240	64.2	84.3	116.4	110.1
	300	67.2	88.2	119.1	112.8
P12-CO	120	63.3	87.2	122.1	110.3
	150			122.1	110.7
	180			122.1	110.7
	210			122.9	111.5
	240	68.8	95.6	130.5	119.1
	300	69.5	96	133.2	121.8
P13-CO	120	66.3	94.8	127.6	113.9
	150			127.6	114.3
	180			127.6	114.3
	210			128.4	115.0
	240	69.4	99.6	136.0	122.6
	300	70	99.8	138.7	125.4
P15-CO	120	69.1	98.3	137.0	120.5
	150			137.0	120.5
	180			137.0	120.5
	210			137.8	121.3
	240	72.1	103.1	145.4	128.9
	300	75.2	107.3	148.5	132.0
P18-CO	120	72.8	103.1	147.6	127.2
	150			147.6	127.2
	180			147.6	127.2
	210			148.4	128.0
	240	75.9	107.9	155.9	135.6
	300	79.1	112.1	159.1	138.7
P21-CO	120	78	114.7	161.2	135.7
	150			161.2	136.1
	180			162.0	136.9
	210			163.2	138.1
	240	80.6	118.9	169.7	144.6
	300	82	120.5	172.8	147.7
P24-CO	120	81.2	119.1	172.2	142.8
	150			172.2	143.2
	180			172.2	143.2
	210			173.0	144.0
	240	83.7	123.3	179.5	150.5
	300	84.8	125.1	182.2	153.2
P27-CO	120	87.2	132.4	189.5	155.9
	150			189.5	155.9
	180			189.5	155.9
	210			190.2	156.7
	240	88.5	134.7	193.5	159.9
	300	90.1	137.3	197.4	163.9

Note : The condition of the above data calculation are Travel : 120m, additional : 200kg of optional cage weight.

Installation plan / Power source plan

■ Power source plan　Power facility plan for 8 to 24 passenger

▶ Single elevator use (1 line per elevator) 380v-50Hz

Type	Rated speed (m/min)	Motor capacity (kW)	Motor source capacity (kVA)	Non-fuse circuit breaker (A)	Total applicable length of the power source line (m)						Grounding line size (mm²)	Heat generation (W)
					5.5 (mm²)	8 (mm²)	14 (mm²)	22 (mm²)	38 (mm²)	60 (mm²)		
P8-CO	120	8	13	40	81	126	224	351	–	–	3.5	2000
	150	10	15	40	66	102	182	285	482	–	3.5	2450
	180	12	18	40	54	85	151	236	399	–	3.5	2950
	210	14	20	50	47	73	131	204	346	–	3.5	3450
	240	16	22	50	41	64	114	178	300	483	3.5	3950
	300	20	27	60	0	46	89	139	235	379	5.5	4900
P12-CO	120	12	17	40	69	107	191	299	–	–	3.5	2800
	150	14	20	50	54	85	151	236	399	–	3.5	3500
	180	18	24	50	46	71	126	198	334	–	3.5	4200
	210	20	27	60	0	57	109	170	288	463	5.5	4900
	240	22	30	60	0	48	92	144	244	392	5.5	5600
	300	28	37	100	0	0	68	115	195	31	5.5	7000
P13-CO	120	12	18	50	66	102	182	285	482	–	3.5	3150
	150	16	22	50	50	79	140	219	370	–	3.5	3900
	180	18	26	60	42	66	117	183	309	497	5.5	4700
	210	22	29	60	0	52	99	155	262	422	5.5	5450
	240	24	33	75	0	0	80	135	228	366	5.5	6250
	300	30	40	100	0	0	64	108	183	295	5.5	7800
P15-CO	120	14	21	50	64	100	178	279	471	–	3.5	3600
	150	18	25	60	48	74	133	208	351	–	5.5	4500
	180	22	29	60	0	57	110	173	292	469	5.5	5350
	210	26	33	75	0	0	87	146	247	397	5.5	6250
	240	28	37	100	0	0	76	129	218	351	5.5	7150
	300	36	46	125	0	0	59	99	168	271	8.0	8950
P18-CO	120	18	24	50	54	85	151	236	399	–	3.5	4200
	150	22	28	60	0	62	119	186	314	–	5.5	5250
	180	26	33	75	0	0	92	155	262	422	5.5	6300
	210	30	38	100	0	0	78	132	223	358	5.5	7350
	240	34	43	100	0	0	64	108	183	295	5.5	8400
	300	42	53	125	0	0	0	89	162	260	8.0	10500
P21-CO	120	20	27	60	0	79	151	236	399	–	5.5	5000
	150	24	33	75	0	0	104	175	296	476	5.5	6250
	180	30	39	100	0	0	85	144	244	392	5.5	7450
	210	34	44	100	0	0	73	124	209	336	5.5	8700
	240	40	50	125	0	0	61	103	174	280	8.0	9950
	300	48	62	150	0	0	0	74	135	218	8.0	12450
P24-CO	120	22	30	60	0	64	122	192	324	–	5.5	5600
	150	28	37	100	0	0	90	151	256	411	5.5	7000
	180	34	43	100	0	0	74	125	211	340	5.5	8400
	210	38	50	125	0	0	63	105	179	287	8.0	9800
	240	44	56	125	0	0	0	85	156	250	8.0	11200
	300	54	69	150	0	0	0	0	115	199	8.0	14000
P27-CO	120	26	33	75	0	0	107	180	305	490	5.5	6300
	150	32	41	100	0	0	84	142	241	387	5.5	7850
	180	38	48	125	0	0	69	117	197	317	8.0	9450
	210	44	55	125	0	0	0	92	167	269	8.0	11000
	240	50	63	150	0	0	0	80	146	234	8.0	12600
	300	62	77	175	0	0	0	0	108	187	14.0	15700

Note : The condition of the above data calculation are Travel : 120m, additional ：200kg of optional cage weight.

■ Works by others　Works below are not included in the installation works of the elevator:

▶ Hoistways

1. Hoistway construction and fire-proofing work, and opening work for jambs, indicators and push-buttons, etc.
   Please note that chipping or padding work is performed as required, in case the structural error is 30 mm or more.
2. Installation work of separating beams, intermediate beam, back beam and lateral beams (as required).
3. Installation work of the base plate for each floor and of bed steel for furnishing the equipments related to landing entrance, in case of hoistways of steel structure of PC structure.
4. Fire-proofing work for the steel frame material in steel structured hoistways, and fire-proofing work around landing entrances (as required).
5. Finishing works of walls and floors, etc., around entrances, after furnishing equipments related to landing entrances.
6. Furnishing work of base steel or others for furnishing rail brackets, particularly for elevated floor heights (as required).
7. Installation work of the entrance or the gangway for pit inspection (as required).
8. Water-proofing work of the pit (including drainage if necessary).
9. Re-arrangement of the building body in case of usable space under the pit.
10. Installation work of emergency exits for rescue purposes when there are floors at which the elevator does not stop and installation of a fascia plate.
11. Shelter equipments from rain at landing entrances directly exposed to the air in the place like roof.
12. Installation work of hooks or beams on top of the elevator shaft.
13. Installation work of lighting in hoistway (as required).
14. Installation work of vent opening at the top of shaft (as required).
15. Installation work of a net or wall to prevent falling into the pit (in case of the pit level is different.)
16. All works related to the building structure other than those above.

▶ Machine rooms

1. Construction work for machine rooms and installation works for their entrances (including sound proofing work if necessary)
2. Fire-proofing work for machine rooms and opening work for machine room floors.
3. Installation work of machine beam supports and spacers.
4. Cinder concreting and its finishing work after floor piping in machine rooms.
5. Installation work of hooks or beams on ceilings in machine rooms.
6. Installation work of stairs leading to machine rooms and stairs in machine rooms (if necessary)
7. Installation work of lighting windows.
8. Dust-proof finish of the floor.

▶ Works for Equipments

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

▶ Temporary Works

The following matters must be arranged:

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 to ensure sufficient passage for carrying heavy goods.
5. Regarding the use of the elevator for the building construction work, a contract with a separate written estimate is required.

Note

When planning elevator equipments, please take the following items into consideration:

1. Provide the power facility so that the voltage regulation of power supply at the receiving terminals in the hoistway is kept within ±10% for motor, and ±2% for lighting equipments.
2. In the hoistways, please ensure the temperature does not exceed 40 ˚C and humidity 90% (monthly mean) and 95% (daily mean).
3. Please do not allow ingress of chemically toxic gas or excess amount of dust enter into the hoistways, that makes the metal or electrical contacts corrode.

For the estimate inquiry, please inform us of the following:

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

Global Network

● Head office／Manufacturing base
● Head office

A TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION
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D TOSHIBA ELEVATOR (CHINA) CO., LTD.
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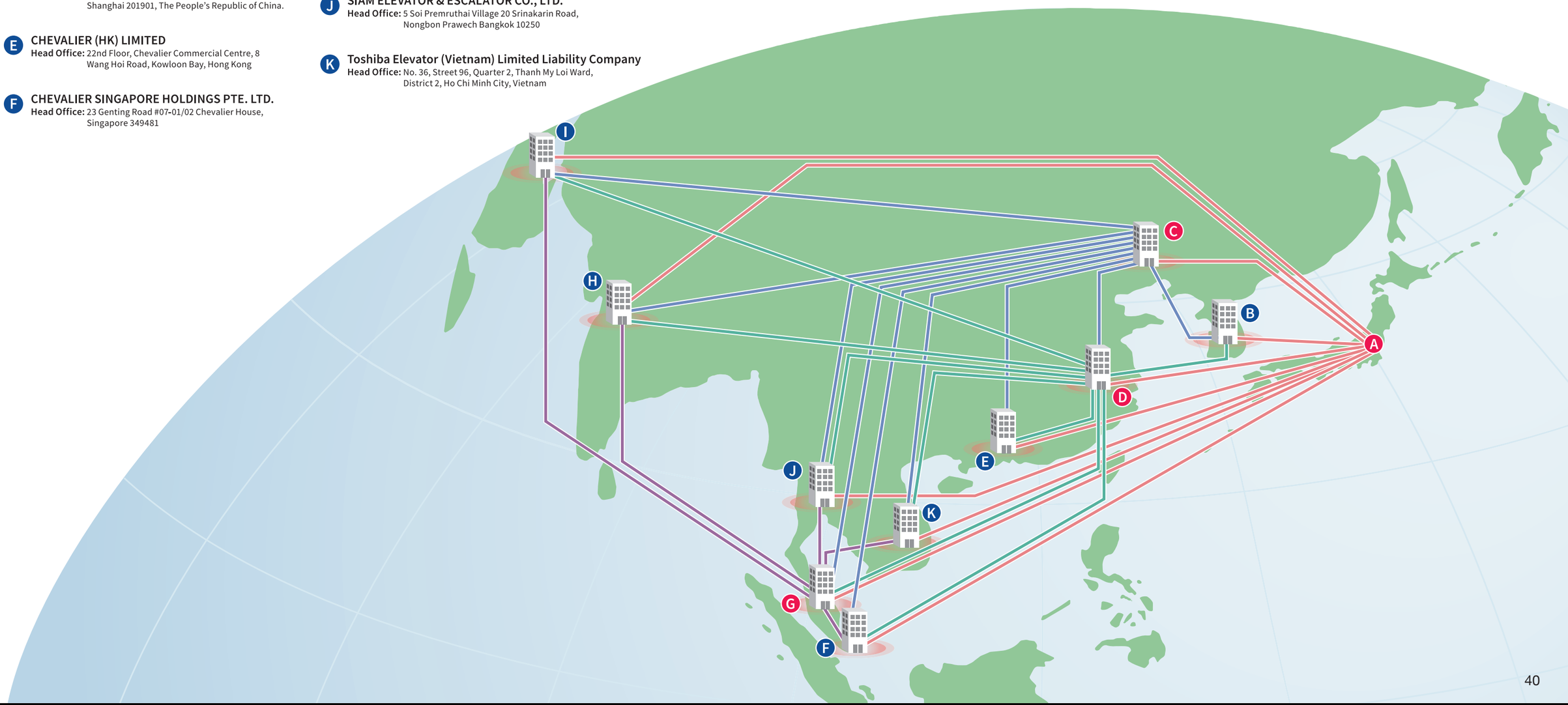
I TOSHIBA ELEVATOR MIDDLE EAST (L.L.C.)
Head Office: P. O. Box 16733, Dubai, UAE

J SIAM ELEVATOR & ESCALATOR CO., LTD.
Head Office: 5 Soi Premruthai Village 20 Srinakarin Road, Nongbon Prawech Bangkok 10250

K Toshiba Elevator (Vietnam) Limited Liability Company
Head Office: No. 36, Street 96, Quarter 2, Thanh My Loi Ward, District 2, 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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http://www.toshiba-elevator.co.jp

Major Completed Projects

Reem Island (Plot-1) Overall Perspective

Project : Residential Tower
Location : Marina Square, Zone A, Reem Island Abu Dhabi
Client : M/s Tamouh Invesments

Description:

- 1 Residential Tower, 1 Office tower and 2 smaller Residential towers
- Total 21 Elevators.

Project : Residential Tower
Location : Reem Island, Zone B, Abu Dhabi
Client : M/s Tamouh Investments

Description:

- 2 towers in Zone B with 44 storey and 7 town houses
- 10 high rise elevators and 7 machine room-less elevators

Project : Residential Tower
Location : Reem Island, Zone C, Abu Dhabi
Client : M/s Tamouh Investments

Description:

- 5 towers in Zone C with 45 ~ 51 storey's
- Comprises 39 elevators, 2 escalators and 2 travellators

Project : Residential Tower
Location : Marina Square, Zone D, Reem Island Abu Dhabi
Client : M/s Tamouh Investments

Description:

- 2 High rise towers (52 storeys) and 1 Mid rise tower (28 storeys)
- 16 elevators

Project : Shopping Mall Development
Location : Reem Island, Zone E1, Abu Dhabi
Client : M/s Tamouh Investment

Description:

- Shopping mall project
- 10 elevators and 18 escalators

Project : Danet Mall
Location : Street 31, Muroor Road, Abu Dhabi
Client : M/s Al Quara

Description:

- Shopping mall and Office complex
- 8 escalators and 4 elevators

Project : Marina Club Office & Hotel Development
Location : Reem Island Plot C1, Abu Dhabi
Client : M/s Tamouh Investments

Description:

- Office tower (63 storey) and car park building
- 24 elevators & 2 escalators (10 elevators with high speed 6.0m/s)

Project : Residential & Office Towers
Location : City of Lights, Plot C-10, C-11 & C11a Reem Island, Abu Dhabi
Client : M/s Tamouh Investments

Description:

- There are 2 Residential towers with 35 storeys and 1 office tower with 44 storeys.
- 21 elevators involved in this project (5 office tower elevators with 6.0 m/s speed)

Project : Mixed Use Development
Location : City of Lights, Plot C-15, Reem Island Abu Dhabi
Client : M/s Tamouh Investments

Description:

- There are 2 towers : 60 storey and 45 storey
- Total 11 high speed elevators, 1 Machine room less elevator and 2 escalators

Project : Hydra Avenue
Location : Reem Island, Plot C4,C5,C6,C7,C8,C9
Client : M/s Hydra Properties

Description:

- There are 6 residential towers (3 Towers completed & 3 Towers ongoing)
- 22 elevators

Project : Saraya 1 & 2 Residential Towers
Location : Abu Dhabi, UAE
Client : M/s. Aabbar

Description:

- There are 2 towers (Residential Towers)
- 8 high speed elevators, 2 Penthouse lift and 1 dumbwaiter involved

Project : Damac Towers By Paramount
Location : Business Bay, Dubai, UAE
Client : M/s. DAMAC, Dubai

Description:

- 5 Star Hotel & Hotel Apartments.
- Total 36 units
- 34 high speed elevators (5.0 m/s & 6.0 m/s) and 2 Machine room-less elevators.

Project : Damac Heights
Location : Dubai Marina,Dubai, UAE
Client : M/s. DAMAC

Description:

- Luxury Residential Tower.
- Total 12 Elevators all are high speed elevator (5 m/s & 4m/s).

Project : Prive by DAMAC
Location : Business Bay,Dubai, UAE
Client : M/s. DAMAC

Description:

- Residential towers consisting of 12 High speed Elevators with speed 4m/s and one Machine Room-less Elevator.

Project : Hotel Holiday Inn
Location : Dubai Festival City, Dubai, UAE
Client : Dubai Festival City.

Description:

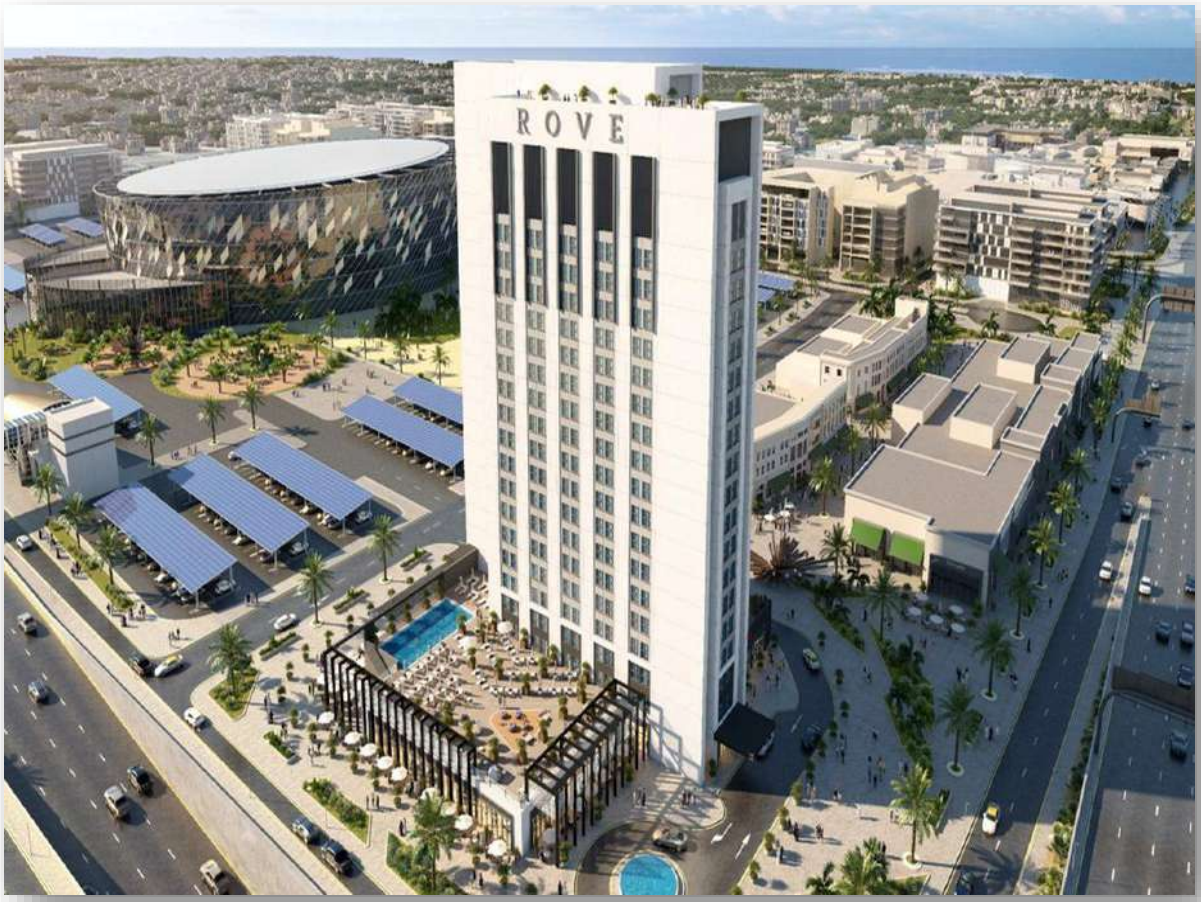
- 4-star Hotel.
- Total 7 Machine Room-less elevators with Speed 2m/s serving 22 floors.

Project : Hotel Stella Di Mare
Location : Dubai Marina, Dubai, UAE
Client : Private Client

Description:

- 5 Star Hotel.
- Total 12 elevators.
- 7 High speed Elevators with Speed 4m/s and 5 Machine Room-less Elevators

Project : Rove Hotel City Walk
Location : City Walk, Dubai, UAE
Client : M/s Rove Hotels



Description:

- 3 Star Hotel Tower with 19 Storey
- Total 7 elevators in which 5 elevators with the speed of 3m/s.

Project : Bloom Towers
Location : Jumeirah Village Circle, Dubai, UAE
Client : M/s Bloom

Description:

- There are 3 towers (Residential Towers) – 1 Tower with 45 storey & other 2 Towers with 35 storeys.
- Total 16 elevators in which 13 elevators with the speed of 3m/s.

Project : Bloom Heights
Location : Jumeirah Village Circle, Dubai, UAE
Client : M/s Bloom

Description:

- There are 2 towers (Residential Towers) – 34 storey & 30 storeys
- Total 9 elevators in which 8 elevators with the speed of 3m/s.

Project : Address Residence A1a, A2 & A3 Dubai Opera
Location : Dubai, UAE
Client : M/s Emaar

Description:

- There are 3 towers. Tower A1a – 7 Storey, Tower A2 – 62 Storey & Tower A3 – 70 Storey
- Total 28 elevators in which 12 elevators with the speed of 5 m/s.

Project : Creekside Tower 18
Location : Dubai Creek Harbour, Dubai, UAE
Client : M/s Emaar

Description:

- There are 2 towers. 54 Storey & 43 Storey
- Total 25 elevators in which 12 elevators with the speed of 4 m/s & 4 elevators with the speed of 5 m/s.

Project : Marina Vista
Location : Emaar Beachfront, Dubai, UAE
Client : M/s Emaar

Description:

- There are 2 towers. 35 Storey & 45 Storey
- Total 14 elevators in which 11 elevators with the speed of 4 m/s

Project : 17 Icon Bay
Location : Dubai Creek Harbour, Dubai, UAE
Client : M/s Emaar

Description:

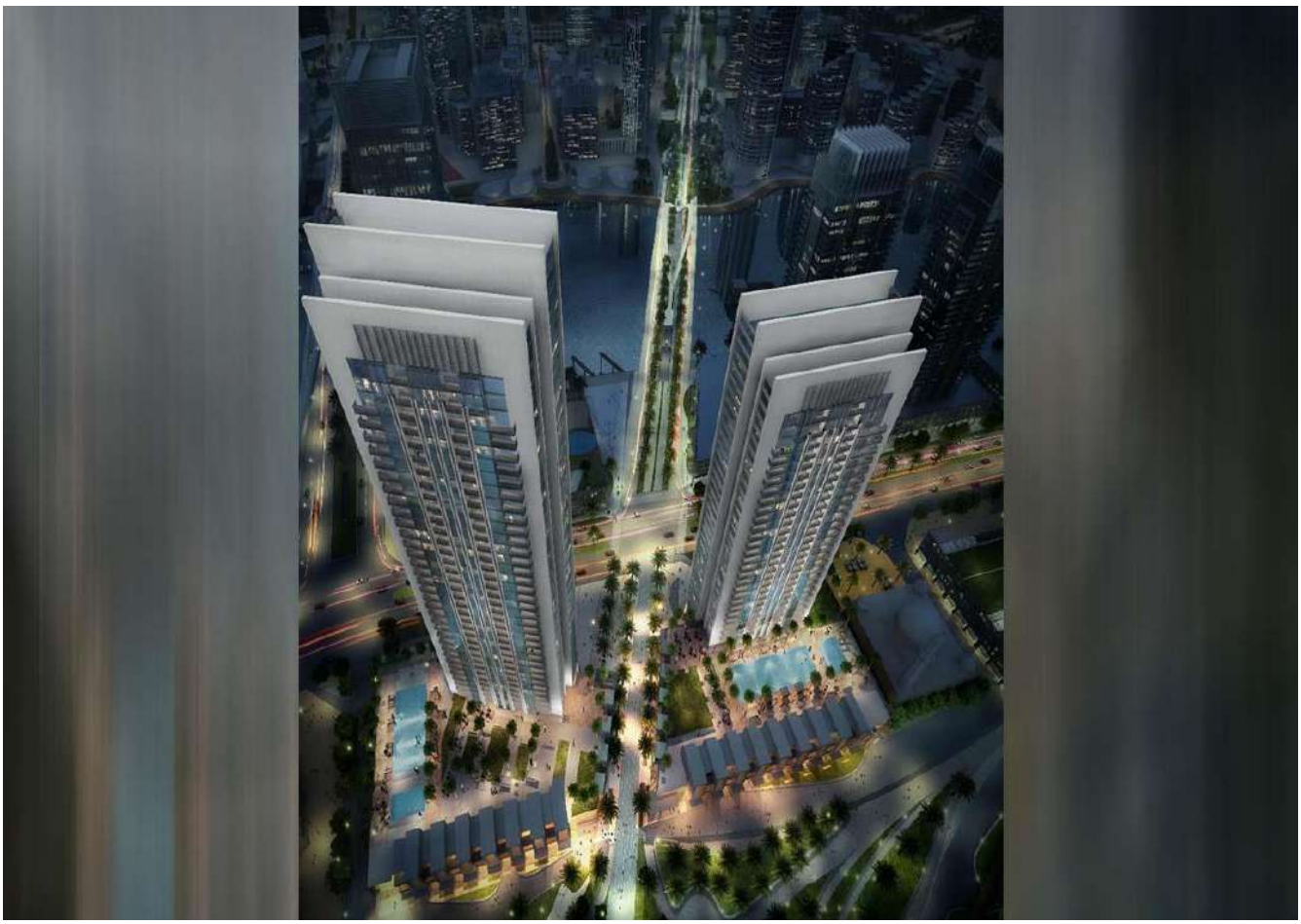
- There are two towers: 46 storey and 7 storeys.
- Total 9 elevators in which 6 elevators with the speed of 4 m/s.

Project : 52/42 Dubai Marina
Location : Dubai Marina, UAE
Client : M/s Emaar

Description:

- There are 2 towers : 52 storey and 45 storey
- Total 11 elevators in which 5 elevators with the speed of 4m/s

Project	**:**	**Creek Gate Building (Plot 32)**
Location	**:**	**Dubai Creek Harbour, UAE**
Client	**:**	**M/s Emaar**



Description:

- There are 2 towers. 30 Storey and 37 Storey
- Total 13 elevators in which 11 elevators with the speed of 3m/s

Project : Address Residences Resort + Spa
Location : Fujairah, UAE
Client : M/s Eagle Hills

Description:

- 5 Star Hotel and Resorts.
- Total 21 Machine Room-less elevators.

Project : AHAD Residences
Location : Business Bay, Dubai, UAE
Client : M/s AHAD Real Estate Development

Description:

- 38 Storey Residential Tower.
- Total 8 elevators in which 7 elevators with the speed of 2.5 m/s and One machine-room less elevator.

TOSHIBA

TOSHIBA COMPACT MACHINE ROOM ELEVATORS
STANDARD PASSENGER ELEVATOR

ELCOSMO-III

2nd Edition

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

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

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TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

THE SOLUTIONS

COMPANY SOLUTIONS

Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment, maintenance and services in order to provide clients with the highest quality products and services.
Utilizing the comprehensive technological infrastructure developed by Toshiba Group in more than 140 years since its foundation, we aim to enhance the leading edge technology and quality that we used to develop the ultra high speed elevator, harnessing Toshiba's technological innovations to their fullest extent. To meet clients' expectations and requirements for safe and pleasant elevators as well as constantly pursuing further innovation and improvement. Furthermore, we are aiming to strengthen system development, production, enhancing sales channel and sales partnership to expand in the global market.

CONCEPT of ELCOSMO-Ⅲ

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

Product Lineup

Toshiba offers a wide variety of compact machine room elevators, which include 8-26 passenger elevators as well as single and double entrance elevators. To meet diversification of customer's demand, sufficient options are also available.

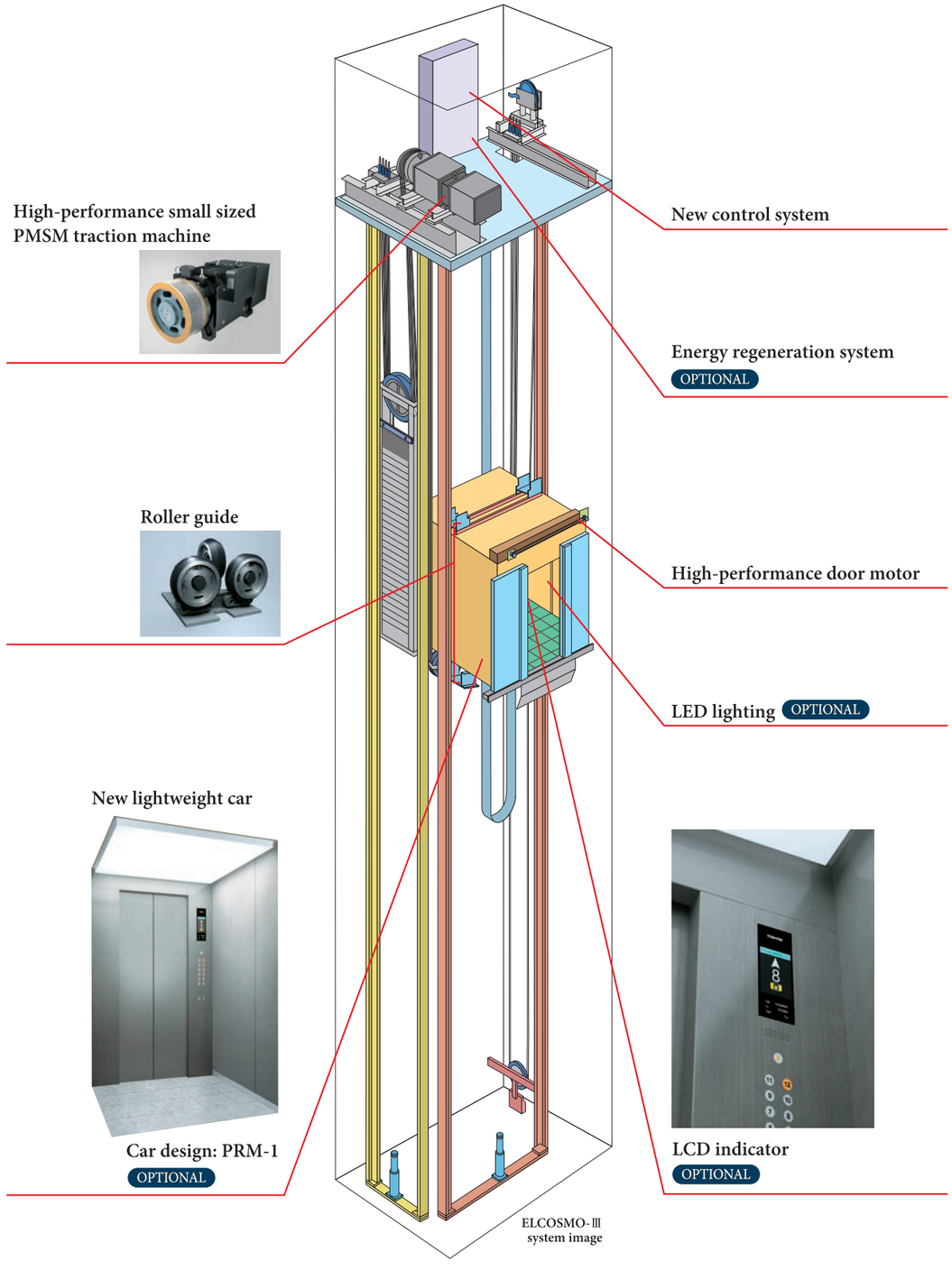
Scope of application	Range of application
Passengers (persons)	8–26 persons
Rated load (kg)	630–2000 kg
Rated speed (m/s)	1–3 m/s

Note
The above scope complies with GB7588:2003 standard.

Rated speed (m/s)	3			ELCOSMO-Ⅲ						
	2.5									
	2									
	1.75									
	1.6									
	1									
Rated load (kg)		630	825	1050	1150	1275	1350	1600	1800	2000
Type		P8	P11	P14	P15	P17	P18	P21	P24	P26

Contents

TECHNOLOGY



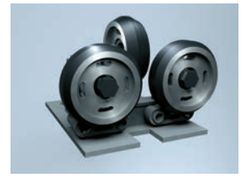
The actual product colors may vary slightly from those printed colors in this catalog.

New Technology

Traction Machine Designed and Manufactured by Toshiba

- Toshiba has manufactured motors for over 100 years since 1895. The motors produced by Toshiba promise better quality assurance and quality control.
- 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.

Use of Roller Guide



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.

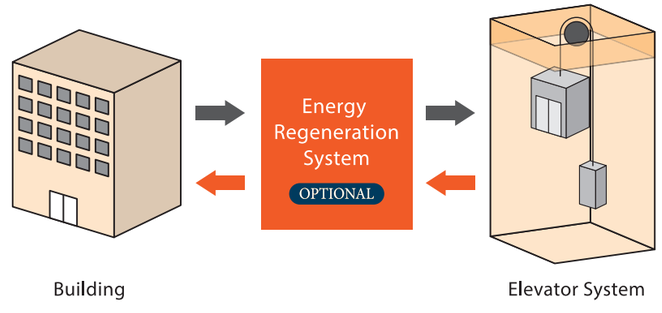
New Control Systems

A high performance CPU is employed for advanced newly developed control system. 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

Note: Applies to specification for models with a capacity of less than 1050kg and fewer 14 persons.

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).



*This optional system may not be suitable for certain buildings. Please contact us for more information.

TECHNOLOGY

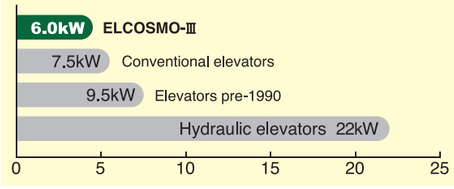
Environmental issues

In order to propose safe and secure elevator, ELCOSMO-Ⅲ focus on environmental issue. The advance technologies for energy consumption and resource saving concept offers high concerns for environmental consciousness.

Energy Saving

ELCOSMO-Ⅲ employs a newly developed compact gearless PMSM motor which enables high energy efficiency. Furthermore, by using a gearless motor, gear oil is not needed, which contributes to saving natural resources.

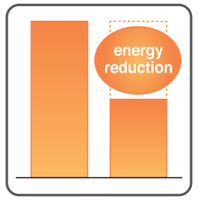
Compared to elevators before 1990's, energy consumption has decreased 40% and for hydraulic elevators, 80% is saved.



*Comparison with"ELCOSMO-Ⅲ" (capacity:1050kg speed:60m/min) and "TOSHIBA STANDARD PASSENGER ELEVATOR","Cellebellum VFW"(capacity:1000kg speed:60m/min)

Energy Regeneration System OPTIONAL

Toshiba focuses on environmental conservation. The consumption of energy feedback system is different from that of regenerative resistance. 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 and suppress a temperature increase in the machine room, which results in over 38% energy conservation (with the assumption of 1050kg, 1.75m/s, 12-hour operation per day, 25 days per month).



Note: Applies to specification for models with a capacity of less than 1050kg and fewer 14 persons.

LED Lighting

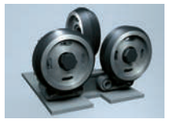
Under equal brightness, an LED lighting system only consumes 10% of an incandescent lamp and 50% of an fluorescent lamp. (part of ceiling)

Car design : PRM-1 OPTIONAL

Resource Saving

Eliminating lubricant oil for guide rail

By employing roller guide for both car and counter weight, lubricant oil will not be necessary which guide shoe required.



Reducing Hazardous Materials

Reduction of lead use

By changing method to tie rope, lead is not necessary in order to tie rope resulting to reduce lead use.

Employing LED lightings

By employing LED light, various materials used for light became mercury free.

Lead-free Design of Circuit Board, RoHS Compliance and Elimination of Specific Chemical Substances (15 Classifications)

Continuous concern on the RoHS compliance, eliminating 15 classifications of specific chemical substances, and using the lead-free technique for main circuit boards.

ELCOSMO-Ⅲ, approved as Toshiba Group's "Excellent ECP" product.

Toshiba Group seeks to create environmentally conscious products and for all the products created, we set a goal to develop No.1 environmentally suitable products. Within Toshiba group, we approve environmentally high potential products as "Excellent ECP" products and ELCOSMO-Ⅲ has been approved as an "Excellent ECP".

STYLISH and COMFORTABLE

PRM-1
Ceiling
All-area Glass fiber cloth lighting
(LED lights)

New Ceiling Design

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Wide variety of newly developed LED lighting available.*Note 1

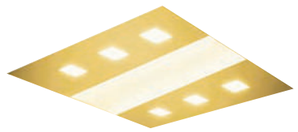
*Development of environmentally conscious LED lighting.

LED lighting is mercury-free, energy-saving and long life.
The electric consumption fall about 85% and the product life time will be increased 20 times.
Therefore LED lighting reduces CO_2 emissions.

Note 1: Applied in car design SL-V1, SL-V2, SL-3, TL-1, DLX-21, DLX-22, DLX-23, DLX-24, DLX-25, PRM-1, PRM-2.
Note 2: Car design SL-1, SL-2 has four square shaped lights at the center, and round LED light at corners.

PRM-1

PRM-2



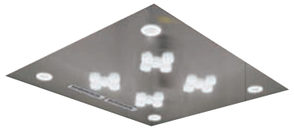
DLX-25 / DX-25

DLX-24 / DX-24

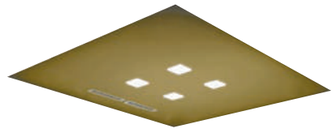
DLX-23 / DX-23

DLX-22 / DX-22

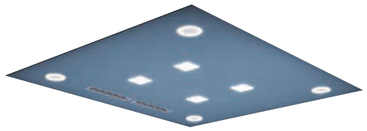
DLX-21 / DX-21



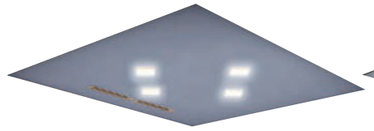
TL-1



SL-V1



SL-1



SL-V2

SL-2

SL-3

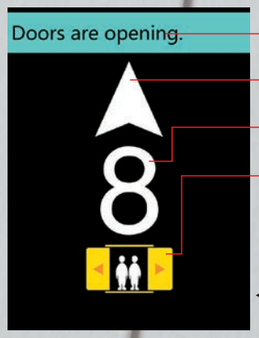
The actual product colors may vary slightly from those printed colors in this catalog.

STYLISH and COMFORTABLE

Large LCD indicator for car operation panel

These 10.4, 8.4 and 5.7 inch LCD indicators are capable of displaying the elevator's various conditions (emergency operations, maintenance status) in large icons and letters in highly visible colors.

OPTIONAL



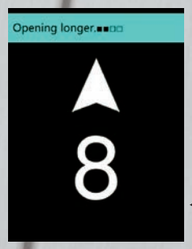
Elevator Status

Direction

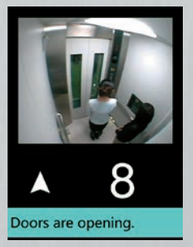
Floor

Door Operation

◀8.4 inch LCD
(POP-G1L)



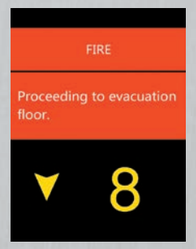
◀5.7 inch LCD
(COP-G1L)



OPTIONAL

Coordination with car operation panel indicator display and car security camera.

Large LCD indicator is capable of displaying visuals linked from car security camera.
There is no necessity to provide an extra monitor to display security camera's image.



Display examples
for car indicator display

◀Fire emergency operation

During emergency operation,
the display will announce the message in red.

*Capable of displaying optional operations such as fire emergency operation.

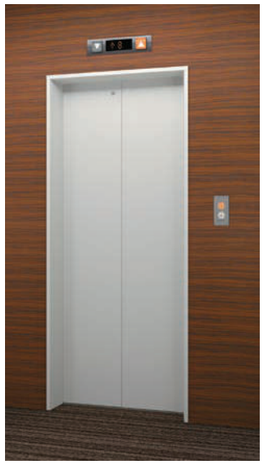
The actual product colors may vary slightly from those printed colors in this catalog.

Hall Design

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Hall design 1

OPTIONAL



Hall design 2

OPTIONAL

Hall design 3

OPTIONAL

Hall design 4

OPTIONAL

Hall design 5

OPTIONAL

Hall design 6

STANDARD

*Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

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

Functions

○ : STANDARD △ : OPTIONAL

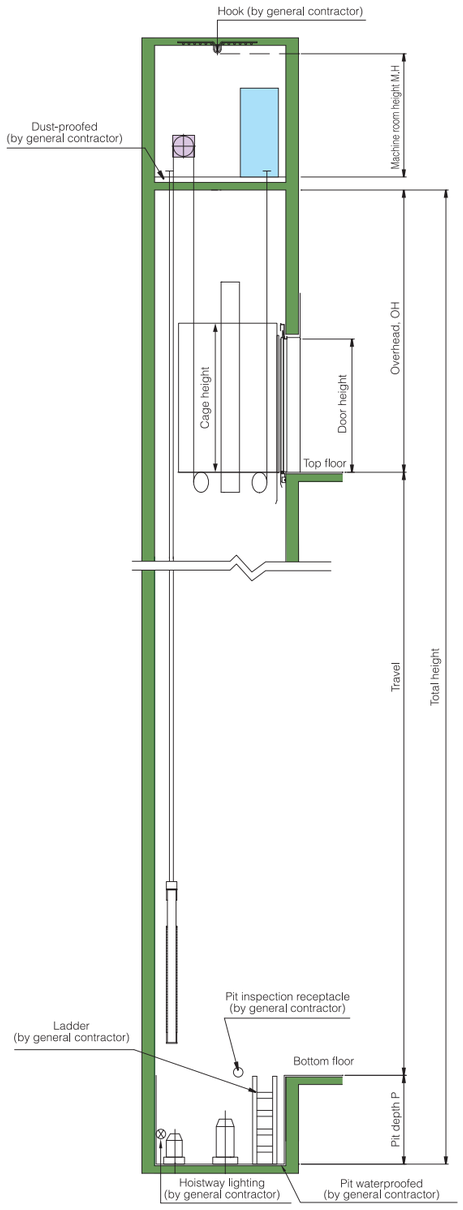
Functions	Notes	Descriptions	
Operations	Simplex selective-collective fully automatic operation	Fully automatic operation by hall and car calls for single car	○
	Duplex selective collective fully automatic operation (Note 1)	Fully automatic operation for 2 cars in the same group	△
	3 or 4-car group supervisory control system	Fully automatic operation for 3 or 4 cars in the same group	△
	Group supervisory control system	For supervisory operation of groups of more than 4 cars, please contact us	△
	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	△
Safety Functions	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	○
	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	○
	Door open when the lift car is overloaded	The doors will re-open when over load is detected, even during the closing of doors.	○
	Fireman's operation	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	△
	Power failure emergency operation	In the event of power failure, all lifts will return to the designated floor by emergency power supply from the building to allow passengers to exit	△
	Automatic landing during power failure (TOSLANDER)	In the event of power failure, the lift will land at the nearest floor by emergency battery	△
	Earthquake emergency operation	In the event of an earthquake, the elevator will detect the seismic signal and land at the nearest floor	△
	In-car emergency lamp (self-charging)	In the event of power failure, the in-car emergency lamp will be activated	○
	Emergency call button	A button for passenger to make an emergency call when they are trapped inside the lift	○
	Emergency operation indication at COP	In the event of an emergency, the emergency operation status will be displayed at COP	○
	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	△
Service Functions	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by	△
	Service floor cut-off selection	Disables the designated floor service	△

Notes
1: Not applicable to lift car with through door.
2: > 5 floors and car weight < 150kg.

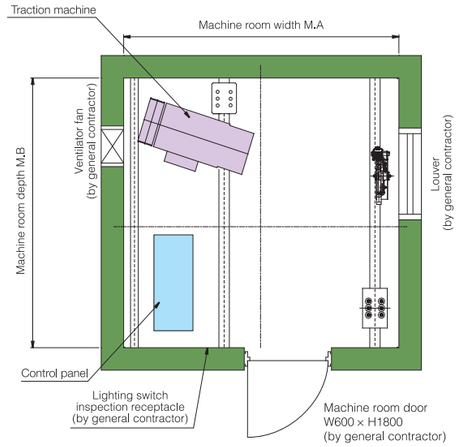
○ : STANDARD △ : OPTIONAL

Functions	Notes	Descriptions	
Service Functions	Full car bypass (Note 2)	When the lift car is full, the lift will bypass all hall calls and go straight to the designated floor	○
	Car call cancellation	The floor call can be cancelled from the COP by pressing the floor button twice within 3 second	○
	Nuisance call cancellation	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation	○
	Repeated door opening	When an obstacle is detected, the door will repeatedly open and close repeatedly pending removal of the obstacle	○
	Adjustable door opening time	Adjusts the door opening time to reflect building usage	○
	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	△
	Hall lantern	The hall lantern will light up when the lift arrived	△
	Sub-car operating panel	Additional car operating panel	△
	Car full load indicator	"Full Load" will display on the hall indicator when the lift car is full	△
	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	○
	"Door Open" button lamp (for automatically cut-off car lighting)	The "Door Open" button will remain lit when the lift car light is turned off automatically	○
	Nuisance call cancellation at reversal	Cancel intentionally registered nuisance calls automatically in the reversal travel direction	○
	Multi-channel intercom	The intercom system can communicate with multi-stations simultaneously	○
	Designated floor stop operation	Automatically stops the lift at the designated floor for crime prevention purposes	△
	Card access system	Allows activation of the disnated floor call by IC card ※ Card Access System by others	△
	Speech synthesizer	Announces car operations	△
	Supervisory panel	Located in the building control room, etc. to monitor the status and control of each lift	△

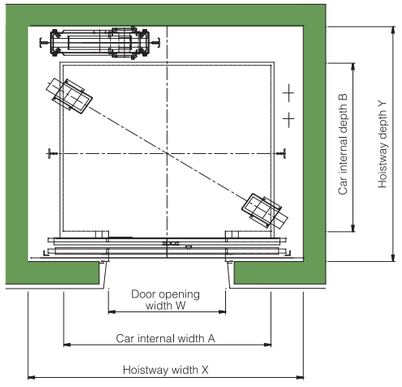
Hoistway Layout



Hoistway section



Machine room plan



Hoistway plan (W)

Specifications

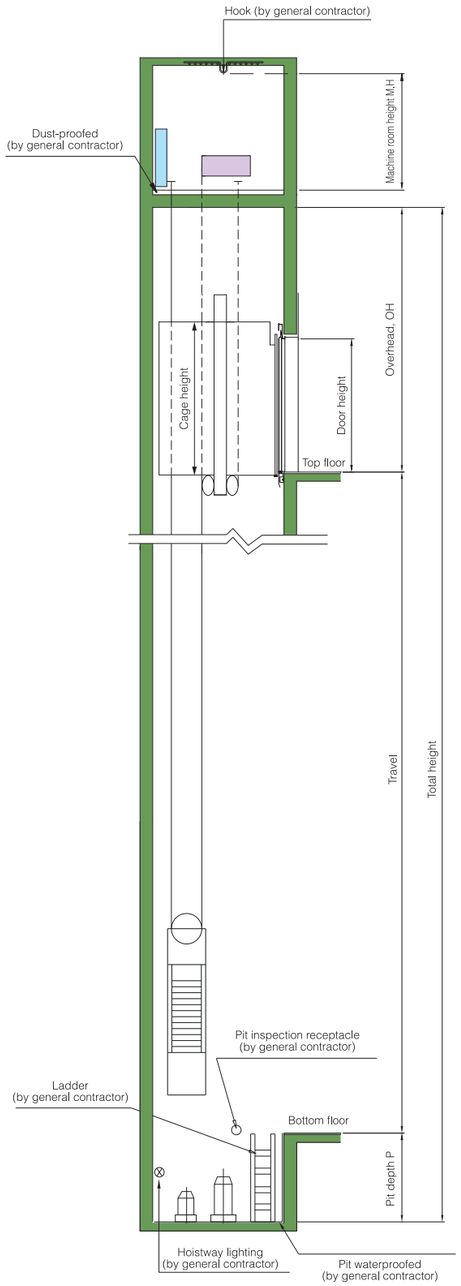
Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm)			Machine room dimensoins(mm)		Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
							X×Y	OH	P	M.A×M.B	M.H			
P8-CO60	W	8	630	1	1400×1100	800	1850×1660	3700	1300	1850×1660	2000	3.6	40	90
						900	2050×1660			2050×1660				
P8-CO96	W			1.6		800	1850×1660	3900	1400	1850×1660		5.8		100
						900	2050×1660			2050×1660				
P8-CO105	W			1.75		800	1850×1660	3950	1450	1850×1660		6.3		
						900	2050×1660			2050×1660				
P8-CO120	W			2		800	1850×1660	4050	1650	1850×1660		7.2		125
						900	2050×1660			2050×1660				
P11-CO60	W	11	825	1	1400×1350	800	1850×1910	3700	1300	1850×1910		4.7	40	90
						900	2050×1910			2050×1910				
P11-CO96	W			1.6		800	1850×1910	3900	1400	1850×1910		7.5		100
						900	2050×1910			2050×1910				
P11-CO105	W			1.75		800	1850×1910	3950	1450	1850×1910		8.3		
						900	2050×1910			2050×1910				
P11-CO120	W			2		800	1850×1910	4050	1650	1850×1910		9.5		125
						900	2050×1910			2050×1910				
P11-CO150	W			2.5		800	1850×1910	4250	2100	1850×1910		11.8		
						900	2050×1910			2050×1910				
P14-CO60	W	14	1050	1	1600×1400	900	2100×1960	3700	1300	2100×1960		6.0	40	90
						1000	2300×1960			2300×1960				
						1100	2500×1960			2500×1960				
P14-CO96	W			1.6		900	2100×1960	3900	1400	2100×1960		9.7		100
						1000	2300×1960			2300×1960				
						1100	2500×1960			2500×1960				
P14-CO105	W			1.75		900	2100×1960	3950	1450	2100×1960		10.5		
						1000	2300×1960			2300×1960				
						1100	2500×1960			2500×1960				
P14-CO120	W			2		900	2100×1960	4050	1650	2100×1960		12.0		125
						1000	2300×1960			2300×1960				
						1100	2500×1960			2500×1960				
P14-CO150	W			2.5		900	2100×1960	4250	2100	2100×1960		15.0		
						1000	2300×1960			2300×1960				
						1100	2500×1960			2500×1960				

Note:

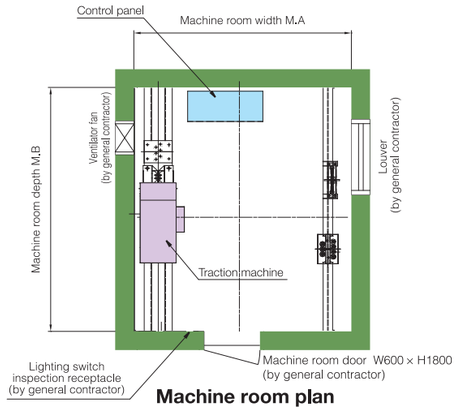
- The above table complies with GB7588:2003 standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Please contact to our local distributor to check for other standards.
- Hoistway dimensions are the minimum dimension after the construction 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.
- The above data table of “OH” dimensions is based cage height: 2300mm. Please contact our local distributor to check for other conditions.
- 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.

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

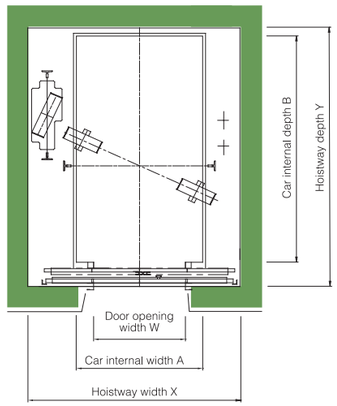
Hoistway Layout



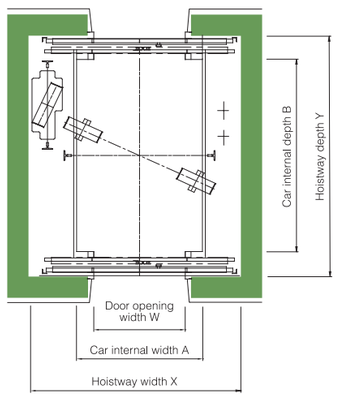
Hoistway section



Machine room plan



Hoistway plan (D)



Hoistway plan (D2)

Specifications

Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm)			Machine room dimensoins(mm)		Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
							X×Y	OH	P	M.A×M.B	M.H			
P8-CO60	D	8	630	1	1100×1400	800	1835×1725	3700	1300	1835×1725	2000	3.6	40	90
						900	2020×1725			2020×1725				
P8-CO96	D			1.6		800	1835×1725	3900	1400	1835×1725		5.8		100
						900	2020×1725			2020×1725				
P8-CO105	D			1.75		800	1835×1725	3950	1450	1835×1725		6.3		
						900	2020×1725			2020×1725				
P8-CO120	D			2		800	1835×1725	4050	1650	1835×1725		7.2		125
						900	2020×1725			2020×1725				
P11-CO60	D	11	825	1	1100×1700	800	1850×2000	3700	1300	1850×2000		4.7	40	90
						900	2020×2000			2020×2000				
	D2					800	1850×2150			1850×2150			80	
						900	2020×2150			2020×2150				
P11-CO96	D			1.6		800	1850×2000	3900	1400	1850×2000		7.5	40	100
						900	2020×2000			2020×2000				
	D2					800	1850×2150			1850×2150			80	
						900	2020×2150			2020×2150				
P11-CO105	D			1.75		800	1850×2000	3950	1450	1850×2000		8.3	40	
						900	2020×2000			2020×2000				
	D2					800	1850×2150			1850×2150			80	
						900	2020×2150			2020×2150				
P11-CO120	D			2		800	1850×2000	4050	1650	1850×2000		9.5	40	125
						900	2020×2000			2020×2000				
	D2					800	1850×2150			1850×2150			80	
						900	2020×2150			2020×2150				
P11-CO150	D			2.5		800	1850×2000	4250	2100	1850×2000		11.8	40	
						900	2020×2000			2020×2000				
	D2					800	1850×2150			1850×2150			80	
						900	2020×2150			2020×2150				
P14-CO60	D	14	1050	1	1100×2100	800	1850×2400	3700	1300	1850×2400		6.0	40	90
						900	2020×2400			2020×2400				
	D2					800	1850×2550			1850×2550			80	
						900	2020×2550			2020×2550				
P14-CO96	D			1.6		800	1850×2400	3900	1400	1850×2400		9.7	40	100
						900	2020×2400			2020×2400				
	D2					800	1850×2550			1850×2550			80	
						900	2020×2550			2020×2550				
P14-CO105	D			1.75		800	1850×2400	3950	1450	1850×2400		10.5	40	
						900	2020×2400			2020×2400				
	D2					800	1850×2550			1850×2550			80	
						900	2020×2550			2020×2550				
P14-CO120	D			2		800	1850×2400	4050	1650	1850×2400		12.0	40	125
						900	2020×2400			2020×2400				
	D2					800	1850×2550			1850×2550			80	
						900	2020×2550			2020×2550				
P14-CO150	D			2.5		800	1850×2400	4250	2100	1850×2400		15.0	40	
						900	2020×2400			2020×2400				
	D2					800	1850×2550			1850×2550			80	
						900	2020×2550			2020×2550				

※ Please consult our local distributor.

Note:

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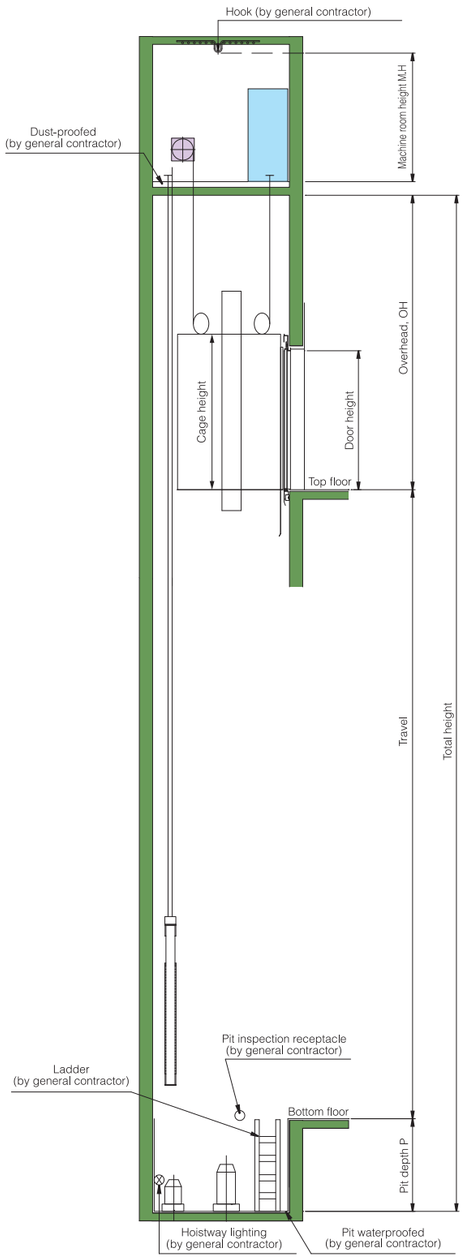
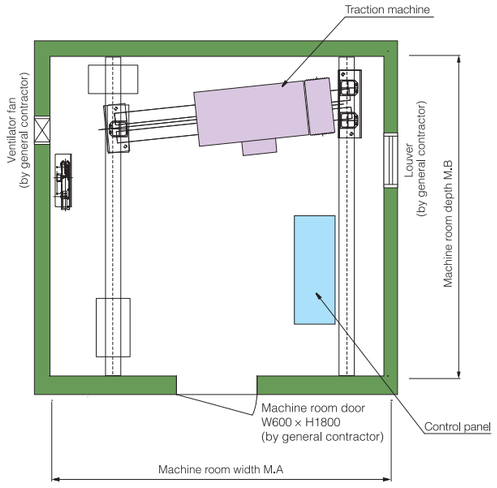
W: Wide car D: Deep car D2: Front and rear opening door

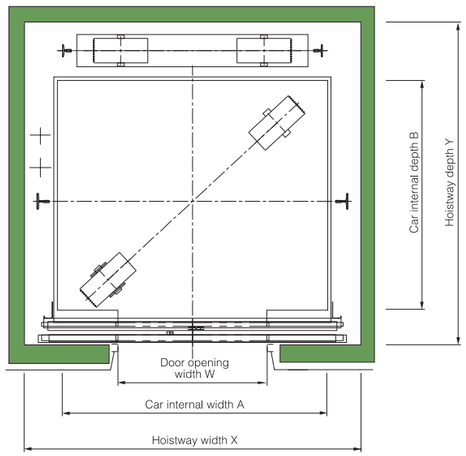
Hoistway Layout



Hoistway section



Machine room plan



Hoistway plan

Specifications

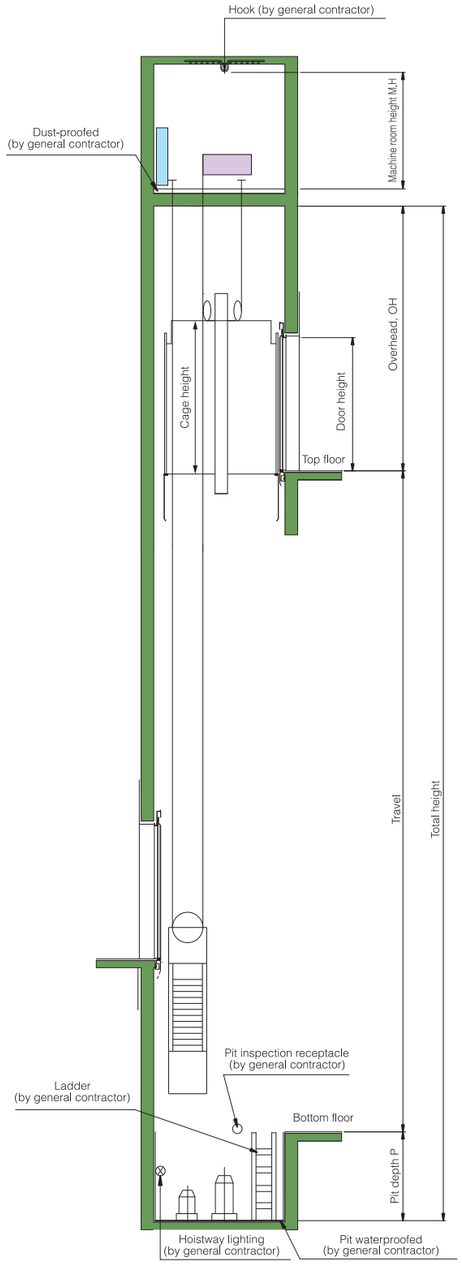
Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm)			Machine room dimensions(mm)		Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
							X×Y	OH	P	M.A×M.B	M.H			
P14-CO180	W	14	1050	3	1600×1400	900	2050×2050	4950	2500	2050×2050	2200	20.0	48	150
	W					1000	2175×2050			2175×2050				
P15-CO60	W	15	1150	1	1800×1500	1000	2250×2150	3900	1300	2250×2150		7.0	48	90
	W					1100	2400×2150			2400×2150				
P15-CO96	W			1.6		1000	2250×2150	4050	1400	2250×2150		12.0		100
	W					1100	2400×2150			2400×2150				
P15-CO105	W			1.75		1000	2250×2150	4100	1450	2250×2150		12.0		
	W					1100	2400×2150			2400×2150				
P15-CO120	W			2		1000	2250×2150	4200	1600	2250×2150		14.0		150
	W					1100	2400×2150			2400×2150				
P15-CO150	W			2.5		1000	2250×2150	4500	2000	2250×2150		20.0		
	W					1100	2400×2150			2400×2150				
P15-CO180	W			3		1000	2250×2150	4950	2500	2250×2150		22.0		
	W					1100	2400×2150			2400×2150				
P17-CO60	W	17	1275	1	2000×1400	1100	2450×2050	3900	1300	2450×2050		8.0	48	90
P17-CO96	W			1.6				4050	1400			12.0		100
P17-CO105	W			1.75				4100	1450			14.0		
P17-CO120	W			2				4200	1600			16.0		150
P17-CO150	W			2.5				4500	2000			20.0		
P17-CO180	W			3				4950	2500			24.0		
P18-CO60	W	18	1350	1	2000×1500	1100	2450×2150	3900	1300	2450×2150		8.0	48	90
P18-CO96	W			1.6				4050	1400			14.0		100
P18-CO105	W			1.75				4100	1450			14.0		
P18-CO120	W			2				4200	1600			16.0		150
P18-CO150	W			2.5				4500	2000			20.0		
P18-CO180	W			3				4950	2500			24.0		
P21-CO60	W	21	1600	1	2000×1700	1100	2450×2350	3900	1300	2450×2350		10.0	48	90
	W					1200	2650×2350			2650×2350				
P21-CO96	W			1.6		1100	2450×2350	4050	1400	2450×2350		16.0		100
	W					1200	2650×2350			2650×2350				
P21-CO105	W			1.75		1100	2450×2350	4100	1450	2450×2350		18.0		
	W					1200	2650×2350			2650×2350				
P21-CO120	W			2		1100	2450×2350	4200	1600	2450×2350		20.0		150
	W					1200	2650×2350			2650×2350				
P21-CO150	W			2.5		1100	2450×2350	4500	2000	2450×2350		24.0		
	W					1200	2650×2350			2650×2350				
P21-CO180	W			3		1100	2450×2350	4950	2500	2450×2350		28.0		
	W					1200	2650×2350			2650×2350				
P24-CO60	W	24	1800	1	2100×1750	1200	2650×2400	3900	1300	2650×2400		12.0	48	90
P24-CO96	W			1.6				4050	1400			18.0		100
P24-CO105	W			1.75				4100	1450			20.0		
P24-CO120	W			2				4200	1600			22.0		150
P24-CO150	W			2.5				4500	2000			26.0		
P24-CO180	W			3				4950	2500			32.0		
P26-CO60	W	26	2000	1	2100×1950	1200	2650×2600	3900	1300	2650×2600		12.0	48	90
P26-CO96	W			1.6				4050	1400			20.0		100
P26-CO105	W			1.75				4100	1450			22.0		
P26-CO120	W			2				4200	1600			24.0		150
P26-CO150	W			2.5				4500	2000			30.0		
P26-CO180	W			3				4950	2500			36.0		

Note:

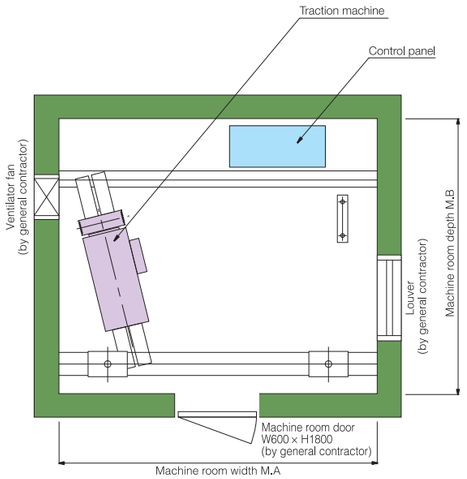
- The above table complies with GB7588:2003 standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Please contact to our local distributor to check for other standards.
- Hoistway dimensions are the minimum dimension after the construction 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.
- The above data table of “OH” dimensions is based cage height: 2300mm. Please contact our local distributor to check for other conditions.
- 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.

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

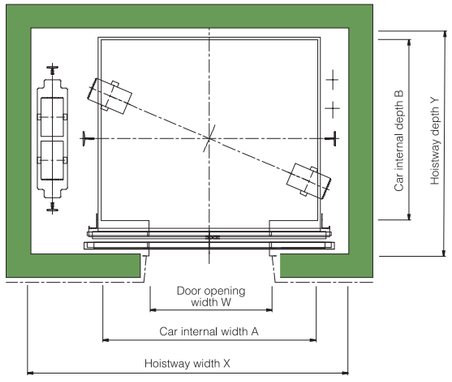
Hoistway Layout



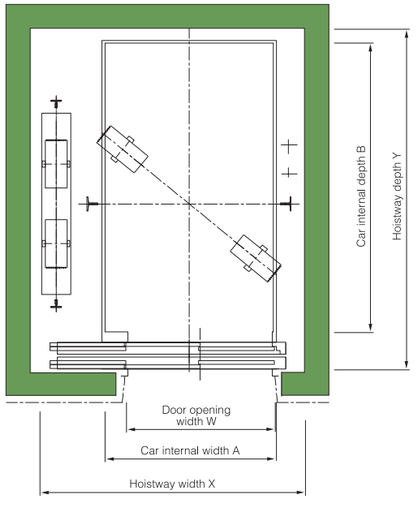
Hoistway section



Machine room plan



Typical floor hoistway plan (W)



Typical floor hoistway plan (D)

Specifications

Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm)			Machine room dimensoins(mm)		Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
							X×Y	OH	P	M.A×M.B	M.H			
P14-CO180	W	13	1050	3	1600×1400	900	2400×1820	4950	2500	2400×1820	2200	20.0	48	150
						1000	2450×1820			2450×1820				
P15-CO60	W	17	1150	1	1800×1500	1000	2600×1840	3900	1300	2600×1840		7.0	48	90
	W					1100	2650×1840			2650×1840				
P15-CO96	W			1.6		1000	2600×1840	4050	1400	2600×1840		12.0		100
	W					1100	2650×1840			2650×1840				
P15-CO105	W			1.75		1000	2600×1840	4100	1450	2600×1840		12.0		
	W					1100	2650×1840			2650×1840				
P15-CO120	W			2		1000	2600×1840	4200	1600	2600×1840		14.0		150
	W					1100	2650×1840			2650×1840				
P15-CO150	W			2.5		1000	2600×1840	4500	2000	2600×1840		20.0		
	W					1100	2650×1840			2650×1840				
P15-CO180	W			3		1000	2600×1840	4950	2500	2600×1840		22.0		
	W					1100	2650×1840			2650×1840				
P17-2S60	D	17	1275	1	1200×2300	1100	2030×2710	3900	1300	2030×2710		8.0	48	90
P17-2S96	D			1.6				4050	1400			12.0		100
P17-2S105	D			1.75				4100	1450			14.0		
P17-2S120	D			2				4200	1600			16.0		150
P17-2S150	D			2.5				4500	2000			20.0		
P17-2S180	D			3				4950	2500			24.0		
P17-2S60	D2	17	1275	1	1200×2200	1100	2030×2870	3900	1300	2030×2870		8.0	※	
P17-2S96	D2			1.6				4050	1400			12.0		
P17-2S105	D2			1.75				4100	1450			14.0		
P17-2S120	D2			2				4200	1600			16.0		
P17-2S150	D2			2.5				4500	2000			20.0		
P17-2S180	D2			3				4950	2500			24.0		
P21-2S60	D	21	1600	1	1400×2400	1200	2230×2810	3900	1300	2230×2810		10.0	48	90
P21-2S96	D			1.6				4050	1400			16.0		100
P21-2S105	D			1.75				4100	1450			18.0		
P21-2S120	D			2				4200	1600			20.0		150
P21-2S150	D			2.5				4500	2000			24.0		
P21-2S180	D			3				4950	2500			28.0		
P21-2S60	D2	21	1600	1	1400×2300	1200	2230×2970	3900	1300	2230×2970		10.0	※	
P21-2S96	D2			1.6				4050	1400			16.0		
P21-2S105	D2			1.75				4100	1450			18.0		
P21-2S120	D2			2				4200	1600			20.0		
P21-2S150	D2			2.5				4500	2000			24.0		
P21-2S180	D2			3				4950	2500			28.0		

※ Please consult our local distributor.

Note:

- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Please contact to our local agency to check for other standard.
- Hoistway dimensions are the minimum dimension after the construction work.
- The hoistway dimensions in chart are the minimum requirement.
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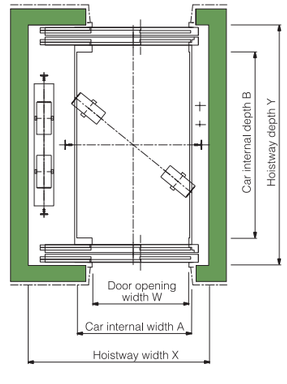
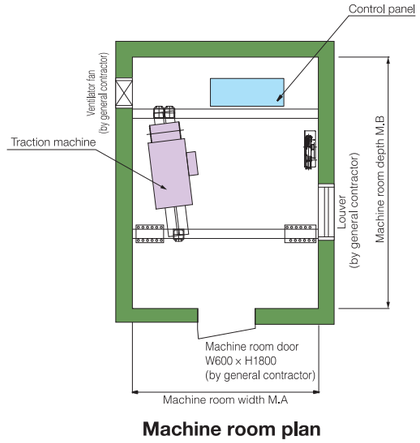
- The above data table of “OH” dimensions is based cage height: 2300mm. Please contact our local distributor to check for other conditions.
- If the size of the hoistway is greater than above sizes, OH will be larger, please contact us.
- If the location of Power source panel, Control panel and Electric power supply are changed, please contact us.

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



Typical floor hoistway plan (D2)



Machine room plan

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.

▶ Machine rooms

1. Construction of machine rooms and installation works of their entrances (including soundproofing work if necessary)
2. Fire-proofing for machine rooms and opening work for machine room floors.
3. Installation of machine beam supports and spacers.
4. Cinder concreting and finishing after floor piping in machine rooms.
5. Installation of hooks or beams on ceilings in machine rooms.
6. Installation of stairs leading to machine rooms and stairs in machine rooms (if necessary).
7. Installation of lighting and windows.
8. Dustproofing of floors.

▶ Works for Equipment

1. Wiring of the power supply for motors and that for lighting equipment, and of grounding to power source panels of elevators in the Elevator shaft.
2. Wiring of the power supply to the supervisory panels.
3. Piping and wiring of intercoms outside hoistway and of others necessary for elevators.
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 ±10% for the motor, and ±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 base
● Head office

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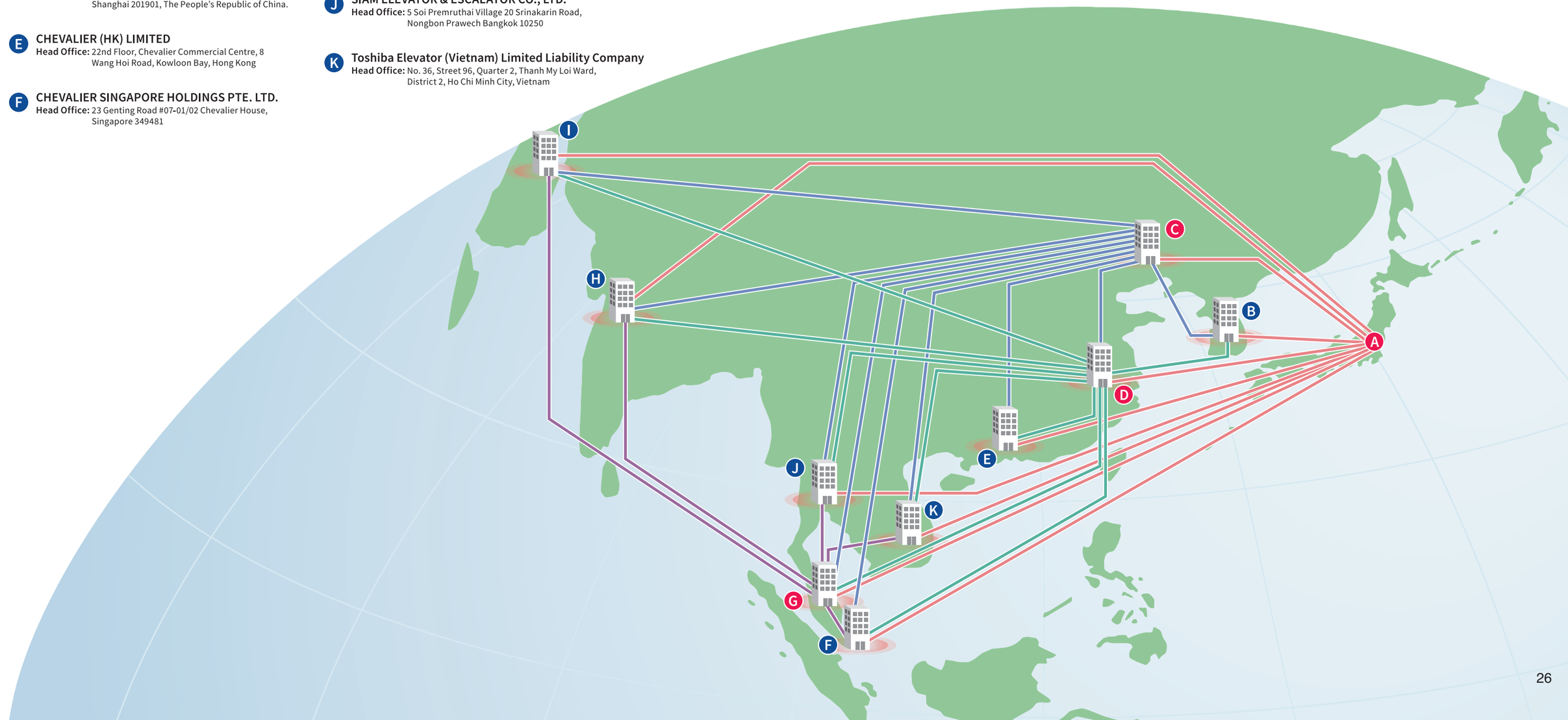

Together with our global partners, we connect with Asia and then the world,
through our technology and our spirit.
This planet is our shared heritage. We must live together, grow together and delight in one another.

【For more information】
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TOSHIBA

TOSHIBA STANDARD PASSENGER ELEVATORS

DESIGN SELECTION

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

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

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TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

THE SOLUTIONS

COMPANY SOLUTIONS

Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment, maintenance and services in order to provide clients with the highest quality products and services.
Utilizing the comprehensive technological infrastructure developed by Toshiba Group in more than 140 years since its foundation, we aim to enhance the leading edge technology and quality that we used to develop the ultra high speed elevator, harnessing Toshiba's technological innovations to their fullest extent. To meet clients' expectations and requirements for safe and pleasant elevators as well as constantly pursuing further innovation and improvement. Furthermore, we are aiming to strengthen system development, production, enhancing sales channel and sales partnership to expand in the global market.

TOSHIBA STANDARD PASSENGER ELEVATORS

DESIGN SELECTION

Appearances Worthy of the Building

When a person enters a building, the first room to step inside is the elevator. The elevator plays an important role as a face deciding the first impression of the building and provides an enjoyable time in traveling from one floor to another.

It is the Toshiba elevator which elegantly and vividly produces a personality by means of a variety of expressions in line with the atmosphere of any building.

Contents

CAR DESIGN

PRM-1
Ceiling
All-area Glass fiber cloth lighting
(LED lights)

New Ceiling Design

Wide variety of newly developed LED lighting available.*Note 1

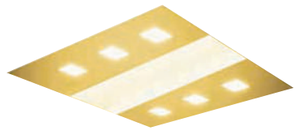
*Development of environmentally conscious LED lighting.

LED lighting realizes mercury-free, energy-saving and long life.
The electric consumption fall about 85% and the product life time will be increased by 20 times.
Therefore LED lighting reduces CO_2 emissions.

Note 1: Applied in car design SL-V1, SL-V2, SL-3, TL-1, DLX-21, DLX-22, DLX-23, DLX-24, DLX-25, PRM-1, PRM-2.
Note 2: Car design SL-1, SL-2 has four square shaped lights at the center, and round LED light at corners.

PRM-1

PRM-2



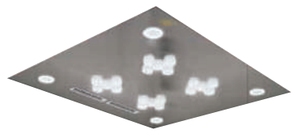
DLX-25 / DX-25

DLX-24 / DX-24

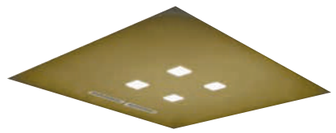
DLX-23 / DX-23

DLX-22 / DX-22

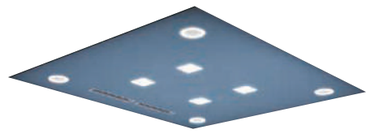
DLX-21 / DX-21



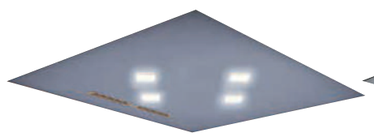
TL-1



SL-V1



SL-1



SL-V2

SL-2

SL-3

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

Car Design

OPTIONAL

PRM-1

Ceiling
All-area Glass fiber cloth lighting (LED lights)

Front side view

Car side panel (Return panel)	Vibration finish stainless steel (RJ-002)
Car side panel (Side panel)	Black color hairline finish stainless steel (RJ-006) and Vibration finish stainless steel (RJ-002)
Car side panel (Rear panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Nil
Car door	Black color hairline finish stainless steel (RJ-006)
Car floor	Marble tile (JQ-1013)
COP	POP-G1L-104C-3A
Indicator	10.4inch LCD
Handrail	Stainless steel flat type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Back side view

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

OPTIONAL

PRM-1

Ceiling
All-area Glass fiber cloth lighting (LED lights)

Car side panel (Return panel)	Satin finish stainless steel (RJ-004)
Car side panel (Side panel)	Satin finish stainless steel (RJ-004)
Car side panel (Rear panel)	Satin finish stainless steel (RJ-004)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Nil
Car door	Satin finish stainless steel (RJ-004)
Car floor	Vinyl tile (MID-833)
COP	POP-G1L-84C-1A
Indicator	8.4inch LCD
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

Car Design

OPTIONAL

PRM-1

Ceiling
All-area Glass fiber cloth lighting (LED lights)

Front side view

Back side view

Car side panel (Return panel)	Vibration finish stainless steel (RJ-002)
Car side panel (Side panel)	Rose gold color hairline finish stainless steel (RJ-007)
Car side panel (Rear panel)	Rose gold color hairline finish stainless steel (RJ-007)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Vibration finish stainless steel (RJ-002)
Car floor	Vinyl tile (MID-806)
COP	COP-G1W-7B
Indicator	Dot type LED (White color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

PRM-1

Ceiling
All-area Glass fiber cloth lighting (LED lights)

Front side view

Back side view

Car side panel (Return panel)	Bronze color hairline finish stainless steel (RJ-008)
Car side panel (Side panel)	Bronze color hairline finish stainless steel (RJ-008)
Car side panel (Rear panel)	Bronze color hairline finish stainless steel (RJ-008)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Bronze color hairline finish stainless steel (RJ-008)
Car floor	Vinyl tile (MID-823)
COP	COP-G1W-7B
Indicator	Dot type LED (White color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

Car Design

OPTIONAL

PRM-2

Ceiling
Acrylic block LED lighting

Car side panel (Return panel)	Black color hairline finish stainless steel (RJ-006)
Car side panel (Side panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Black color hairline finish stainless steel (RJ-006)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Nil
Car door	Mirror etching finish stainless steel (RJ-005DZ007)
Car floor	Vinyl tile (TSF-1C)
COP	POP-G1L-1B
Indicator	Dot type LED light (White color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

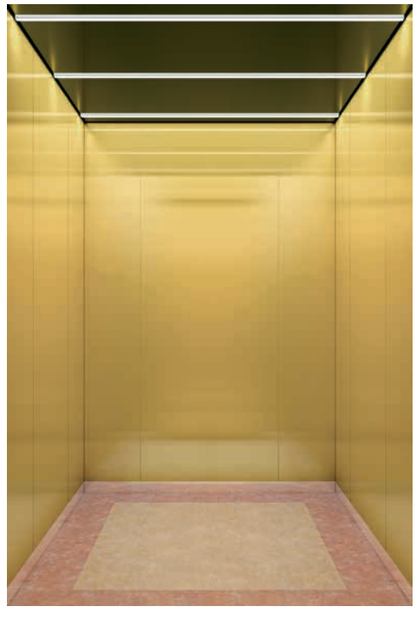
PRM-2

Ceiling
Acrylic block LED lighting

Front side view

Car side panel (Return panel)	Vibration finish stainless steel (RJ-002)
Car side panel (Side panel)	Gold color hairline finish stainless steel (RJ-009)
Car side panel (Rear panel)	Gold color hairline finish stainless steel (RJ-009)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Gold color hairline finish stainless steel (RJ-009)
Car floor	Vinyl tile (TSF-1A)
COP	COP-G1W-7B
Indicator	Dot type LED (White color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Back side view



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

Car Design

OPTIONAL

PRM-2

Ceiling
Acrylic block LED lighting

Car side panel (Return panel)	Black color hairline finish stainless steel (RJ-006)
Car side panel (Side panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Black color hairline finish stainless steel (RJ-006)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Hairline finish stainless steel (RJ-001)
Car floor	Vinyl tile (MID-834)
COP	COP-G1B-3B
Indicator	Dot type LED light (White color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

DLX-25

Ceiling
Gold car decoration combined with symmetrical pattern looks steady and magnificent (LED lights)

OPTIONAL

DX-25

Ceiling
Gold car decoration combined with symmetrical pattern looks steady and magnificent

Car side panel (Return panel)	Gold color hairline finish stainless steel (RJ-009)
Car side panel (Side panel)	Gold color hairline finish stainless steel (RJ-009) and Gold color mirror finish stainless steel (RJ-014)
Car side panel (Rear panel)	Gold color hairline finish stainless steel (RJ-009)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Gold color mirror finish stainless steel (RJ-014)
Car floor	Vinyl tile (TSF-1B)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel flat type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Gold color hairline finish stainless steel (RJ-009)
Car side panel (Side panel)	Gold color hairline finish stainless steel (RJ-009) and Gold color mirror finish stainless steel (RJ-014)
Car side panel (Rear panel)	Gold color hairline finish stainless steel (RJ-009)
Kick plate	Nil
Column	Nil
Car door	Gold color mirror finish stainless steel (RJ-014)
Car floor	Vinyl tile (TSF-1B)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel flat type hand rail
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

Car Design

OPTIONAL

DLX-24

Ceiling
Large-area lighting, square pattern at the center (LED lights)

Front side view

Back side view

Car side panel (Return panel)	Bronze color mirror finish stainless steel (RJ-013)
Car side panel (Side panel)	Bronze color hairline finish stainless steel (RJ-008)
Car side panel (Rear panel)	Bronze color hairline finish stainless steel (RJ-008) and Bronze color mirror finish stainless steel (RJ-013)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Nil
Car door	Bronze color mirror finish stainless steel (RJ-013)
Car floor	Marble tile (JRFL002)
COP	POP-G1L-104C-5A
Sub COP	POP-G1L-104C-5A
Indicator	10.4inch LCD
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

DLX-24

Ceiling
Large-area lighting, square pattern at the center (LED lights)

Car side panel (Return panel)	Sand blast finish stainless steel (RJ-003)
Car side panel (Side panel)	Sand blast finish stainless steel (RJ-003)
Car side panel (Rear panel)	Sand blast finish stainless steel (RJ-003)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Sand blast finish stainless steel (RJ-003)
Car floor	Vinyl tile (TSF-1B)
COP	COP-G1A-3A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

Car Design

OPTIONAL

DLX-24

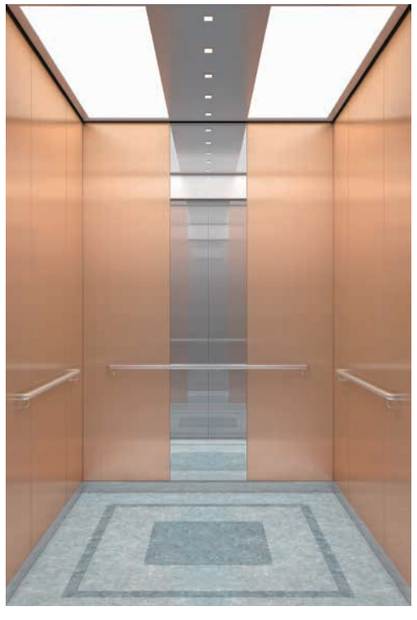
Ceiling

Large-area lighting, square pattern at the center (LED lights)

Front side view

Car side panel (Return panel)	Vibration finish stainless steel (RJ-002)
Car side panel (Side panel)	Rose gold color hairline finish stainless steel (RJ-007)
Car side panel (Rear panel)	Rose gold color hairline finish stainless steel (RJ-007) and Mirror finish stainless steel (RJ-005)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Mirror finish stainless steel (RJ-005)
Car floor	Vinyl tile (TSF-1C)
COP	COP-G1L-57B-7A
Indicator	5.7inch LCD
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Back side view



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

OPTIONAL

DLX-24

Ceiling

Large-area lighting, square pattern at the center (LED lights)

Car side panel (Return panel)	Bronze color hairline finish stainless steel (RJ-008)
Car side panel (Side panel)	Bronze color hairline finish stainless steel (RJ-008) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Bronze color hairline finish stainless steel (RJ-008)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Bronze color mirror finish stainless steel (RJ-013)
Car floor	Vinyl tile (MID-809)
COP	COP-G1K-3A
Indicator	Dot type LED (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

Car Design

OPTIONAL

DLX-24

Ceiling
Large-area lighting, square pattern at the center (LED lights)

Car side panel (Return panel)	Bronze color hairline finish stainless steel (RJ-008)
Car side panel (Side panel)	Bronze color hairline finish stainless steel (RJ-008)
Car side panel (Rear panel)	Bronze color hairline finish stainless steel (RJ-008)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Bronze color hairline finish stainless steel (RJ-008)
Car floor	Vinyl tile (MID-1B)
COP	COP-G1W-7B
Indicator	Dot type LED (White color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

DX-23

Ceiling
Large-area lighting

Front side view

Car side panel (Return panel)	Mirror finish stainless steel (RJ-005)
Car side panel (Side panel)	Sand blast finish stainless steel (RJ-003) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Sand blast finish stainless steel (RJ-003) and Mirror finish stainless steel (RJ-005)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Sand blast finish stainless steel (RJ-003)
Car floor	Vinyl tile (TSF-1C)
COP	COP-G1L-57B-7A
Indicator	5.7inch LCD
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Back side view

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

Car Design

OPTIONAL

DLX-23

Ceiling
Large-area lighting (LED lights)

Car side panel (Return panel)	Black color hairline finish stainless steel (RJ-006)
Car side panel (Side panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Black color hairline finish stainless steel (RJ-006)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Black color hairline finish stainless steel (RJ-006)
Car floor	Vinyl tile (TSF-1B)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

OPTIONAL

DX-23

Ceiling
Large-area lighting

Car side panel (Return panel)	Black color hairline finish stainless steel (RJ-006)
Car side panel (Side panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Black color hairline finish stainless steel (RJ-006)
Kick plate	Nil
Column	Nil
Car door	Black color hairline finish stainless steel (RJ-006)
Car floor	Vinyl tile (TSF-1B)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

OPTIONAL

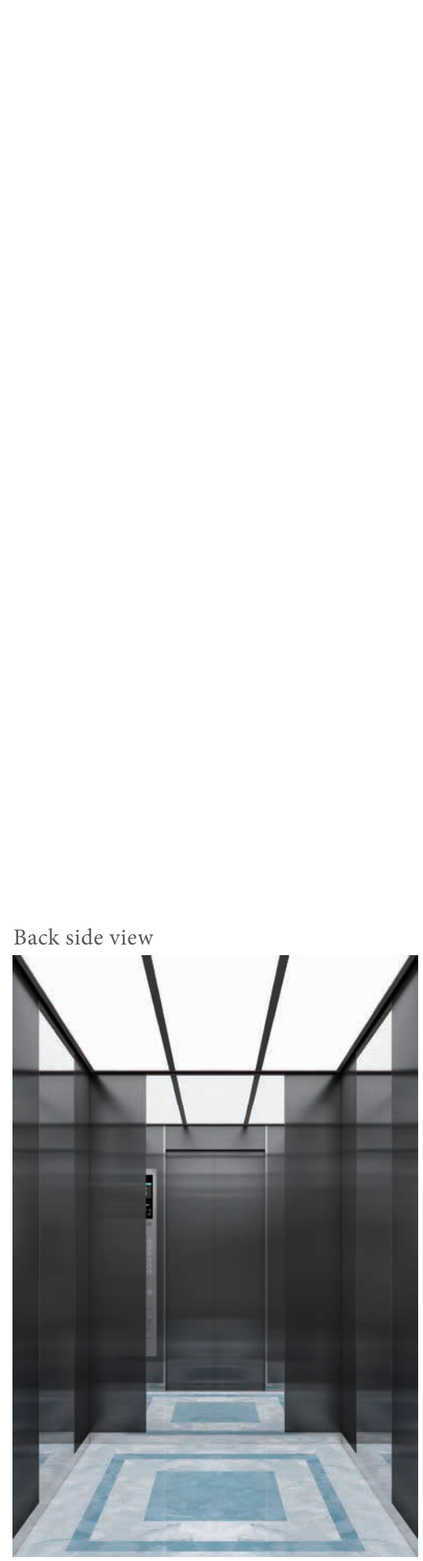
DX-23

Ceiling
Large-area lighting

Front side view

Car side panel (Return panel)	Black color hairline finish stainless steel (RJ-006)
Car side panel (Side panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Black color hairline finish stainless steel (RJ-006) and Mirror finish stainless steel (RJ-005)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Black color hairline finish stainless steel (RJ-006)
Car floor	Vinyl tile (TSF-1C)
COP	COP-G1L-57B-7B
Indicator	5.7inch LCD
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Back side view



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

Car Design

OPTIONAL

DLX-22

Ceiling
Acrylic at the center, down-light propylene panel on both sides (LED lights)

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Hairline etching finish stainless steel (RJ-001DZ001)
Car floor	Vinyl tile (MID-829)
COP	COP-G1K-3A
Indicator	Dot type LED (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

DLX-22

Ceiling
Acrylic at the center, down-light propylene panel on both sides (LED lights)

OPTIONAL

DX-22

Ceiling
Acrylic at the center, down-light propylene panel on both sides

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001) and Mirror etching finish stainless steel (RJ-005DZ007)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Mirror etching finish stainless steel (RJ-005DZ007)
Car floor	Vinyl tile (TSF-1E)
COP	COP-G1K-7A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001) and Mirror etching finish stainless steel (RJ-005DZ007)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Nil
Column	Nil
Car door	Mirror etching finish stainless steel (RJ-005DZ007)
Car floor	Vinyl tile (TSF-1E)
COP	COP-G1K-7A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

Car Design

OPTIONAL

DLX-21

Ceiling

Down-light with propylene panel at the center, frosted acrylic on both sides (LED lights)

OPTIONAL

DX-21

Ceiling

Down-light with propylene panel at the center, frosted acrylic on both sides

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Mirror finish stainless steel (RJ-005)
Car floor	Vinyl tile (TSF-1E)
COP	COP-G1K-7A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Nil
Column	Nil
Car door	Mirror finish stainless steel (RJ-005)
Car floor	Vinyl tile (TSF-1E)
COP	COP-G1K-7A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

OPTIONAL

TL-1

Ceiling

Flower pattern LED lights at the center, and round LED lights at corners

Front side view

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Sand blast finish stainless steel (RJ-003)
Car side panel (Rear panel)	Sand blast finish stainless steel (RJ-003) and Mirror finish stainless steel (RJ-005)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Sand blast finish stainless steel (RJ-003)
Car floor	Vinyl tile (MID-833)
COP	COP-G1L-57B-7A
Indicator	5.7inch LCD
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Back side view

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

Car Design

STANDARD

TL-1

Ceiling

Flower pattern LED lights at the center, and round LED lights at corners

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Hairline finish stainless steel (RJ-001)
Car floor	Vinyl tile (MID-809)
COP	COP-G1S-3A
Indicator	Dot type LED (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

OPTIONAL

SL-1

Ceiling

Four square shaped lights at the center, and round LED lights at corners

Car side panel (Return panel)	Painted steel panel (114PB)
Car side panel (Side panel)	Painted steel panel (114PB)
Car side panel (Rear panel)	Painted steel panel (114PB)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Painted steel panel (114PB)
Car floor	Vinyl tile (MID-833)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Painted steel panel (114PB)
Car side panel (Side panel)	Painted steel panel (114PB)
Car side panel (Rear panel)	Painted steel panel (114PB)
Kick plate	Nil
Column	Nil
Car door	Painted steel panel (114PB)
Car floor	Vinyl tile (MID-833)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

Car Design

STANDARD

SL-1

Ceiling
Four square shaped lights at the center, and round LED lights at corners

Type-1

Car side panel (Return panel)	Sand blast finish stainless steel (RJ-003)
Car side panel (Side panel)	Sand blast finish stainless steel (RJ-003) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Sand blast finish stainless steel (RJ-003)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Mirror finish stainless steel (RJ-005)
Car floor	Vinyl tile (MID-806)
COP	COP-G1L-57B-7A
Indicator	5.7inch LCD
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Type-2

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Hairline finish stainless steel (RJ-001)
Car floor	Vinyl tile (MID-806)
COP	COP-G1L-57B-7A
Indicator	5.7inch LCD
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

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

STANDARD

SL-V1

Ceiling
Four LED lights at the center

Car side panel (Return panel)	Painted steel panel (37YR)
Car side panel (Side panel)	Painted steel panel (37YR)
Car side panel (Rear panel)	Painted steel panel (37YR)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Painted steel panel (37YR)
Car floor	Vinyl tile (MID-823)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Painted steel panel (37YR)
Car side panel (Side panel)	Painted steel panel (37YR)
Car side panel (Rear panel)	Painted steel panel (37YR)
Kick plate	Nil
Column	Nil
Car door	Painted steel panel (37YR)
Car floor	Vinyl tile (MID-823)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

Car Design

OPTIONAL

SL-2

Ceiling

Four square shaped lights at the center, and round LED lights at corners

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Hairline finish stainless steel (RJ-001)
Car floor	Vinyl tile (MID-833)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Hairline finish stainless steel (RJ-001)
Car side panel (Side panel)	Hairline finish stainless steel (RJ-001) and Mirror finish stainless steel (RJ-005)
Car side panel (Rear panel)	Hairline finish stainless steel (RJ-001)
Kick plate	Nil
Column	Nil
Car door	Hairline finish stainless steel (RJ-001)
Car floor	Vinyl tile (MID-833)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

OPTIONAL

SL-V2

Ceiling

Four LED lights at the center

Car side panel (Return panel)	Painted steel panel (52YR)
Car side panel (Side panel)	Painted steel panel (52YR+62Y)
Car side panel (Rear panel)	Painted steel panel (52YR+62Y)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Painted steel panel (62Y)
Car floor	Vinyl tile (MID-823)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Painted steel panel (52YR)
Car side panel (Side panel)	Painted steel panel (52YR+62Y)
Car side panel (Rear panel)	Painted steel panel (52YR+62Y)
Kick plate	Nil
Column	Nil
Car door	Painted steel panel (62Y)
Car floor	Vinyl tile (MID-823)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Handrail	Stainless steel round type hand rail
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

Car Design

OPTIONAL

SL-3

Ceiling
Four round LED lights at corners

Car side panel (Return panel)	Painted steel panel (1N)
Car side panel (Side panel)	Painted steel panel (1N)
Car side panel (Rear panel)	Painted steel panel (1N)
Kick plate	Hairline finish stainless steel (RJ-001)
Column	Hairline finish stainless steel (RJ-001)
Car door	Painted steel panel (1N)
Car floor	Vinyl tile (MID-823)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity over 1150kg and more than 15persons.

Car side panel (Return panel)	Painted steel panel (1N)
Car side panel (Side panel)	Painted steel panel (1N)
Car side panel (Rear panel)	Painted steel panel (1N)
Kick plate	Nil
Column	Nil
Car door	Painted steel panel (1N)
Car floor	Vinyl tile (MID-823)
COP	COP-G1S-1A
Indicator	Dot type LED light (Orange color)
Remark	Applies to models with a capacity of less than 1050kg and fewer 14persons.

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

LED Lighting

Under equal brightness, LED lighting system only consumes 10% of electrical with comparison of an incandescent lamp and 50% of an fluorescent lamp. (part of ceiling)

Car design : PRM-1 OPTIONAL

STANDARD

Ventilation apertures

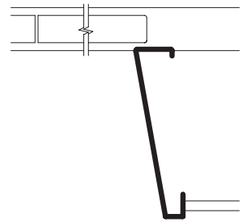
* Applies to models with a capacity of less than 1050kg and fewer 14 persons.

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

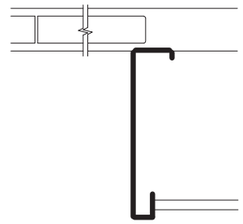
HALL DESIGN

Hall Design Style of Standard Model

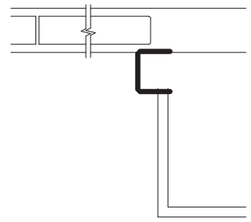
Wide type jamb



Wide type jamb with Transom



Narrow type jamb



*Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

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

Hall Decoration Item Variation

Hall design 1 OPTIONAL

Hall jamb	Wide type jamb Hairline finish stainless steel (RJ-001)
Hall door	Hairline finish stainless steel (RJ-001)
Hall transam	Hairline finish stainless steel (RJ-001)
Hall sill	Hardened aluminium
Hall indicator	Nil
Hall button	HB-G1S-3A
Hall lantern	HL-G1-O

Hall design 2 OPTIONAL

Hall jamb	Wide type jamb Painted steel panel (1N)
Hall door	Painted steel panel (1N)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator	HI-G34-O
Hall button	HB-G1K-7A
Hall lantern	Nil

Hall design 3 OPTIONAL

Hall jamb	Wide type jamb Hairline finish stainless steel (RJ-001)
Hall door	Hairline finish stainless steel (RJ-001)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator	Nil
Hall button	HB-G1S-3A
Hall lantern	HL-G1-O

* Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

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

Hall design 4 OPTIONAL

Hall jamb	Wide type jamb Hairline finish stainless steel (RJ-001)
Hall door	Painted steel panel (37YR)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator / Hall button	HIB-G1L-43B-7A
Hall lantern	Nil

Hall design 5 OPTIONAL

Hall jamb	Wide type jamb Hairline finish stainless steel (RJ-001)
Hall door	Painted steel panel (114PB)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator	HI-G1-O
Hall button	HB-G1S-1A
Hall lantern	Nil

Hall design 6 STANDARD

Hall jamb	Narrow type jamb Painted steel panel (52YR)
Hall door	Painted steel panel (52YR)
Hall transam	Nil
Hall sill	Hardened aluminium
Hall indicator / Hall button	HIB-G1S-1A
Hall lantern	Nil

* Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

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

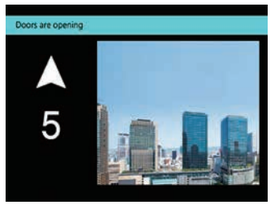
OPERATION SYSTEMS

Operation Systems

POP type G1L series

Car Operating Panel OPTIONAL

POP-G1L-104C-3A



10.4 inch LCD

KB-3 (Orange light)

PRM-1 OPTIONAL

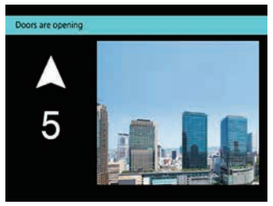
Car Operating Panel OPTIONAL

<Sub Panel>

POP-G1L-104C-5A

<Main Panel>

POP-G1L-104C-5A



10.4 inch LCD

KB-5 (Orange light)

DLX-24 OPTIONAL

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

Operation Systems

POP type G1L series

Car Operating Panel OPTIONAL

<Return Panel Series>

POP-G1L-84C-1A

8.4 inch LCD

KB-1 (Orange light)

PRM-1 OPTIONAL

Car Operating Panel OPTIONAL

<Return Panel Series>

POP-G1L-1B

White light

KB-1
(White light)

DX-23 OPTIONAL

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

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

Operation Systems

FCOP type G1L series

Car Operating Panel OPTIONAL

<Full Height Series>

FCOP-G1L-84C-5A
(8.4 inch LCD)

8.4 inch LCD

KB-5 (Orange light)

DLX-24 OPTIONAL

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

COP type G1L series

Car Operating Panel OPTIONAL

COP-G1L-57B-5A
(5.7 inch LCD)

3mm

5.7 inch LCD

KB-5 (Orange light)

SL-1

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

Operation Systems

COP type G1A series

Car Operating Panel OPTIONAL

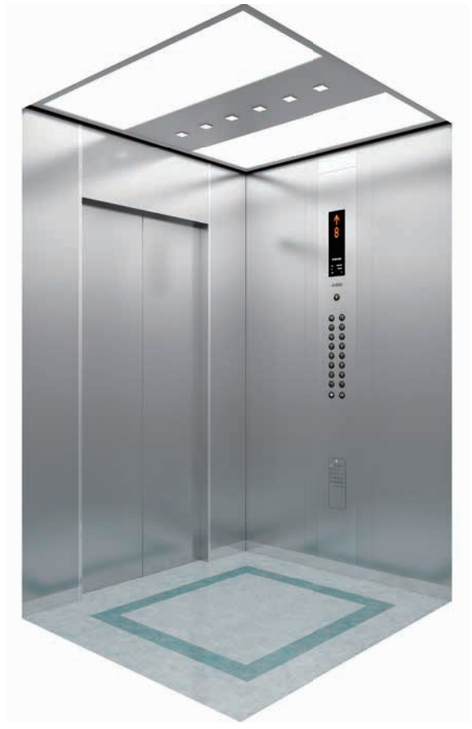
<Full Height Series>

COP-G1A-3A

Orange light

KB-3
(Orange light)

DLX-24 OPTIONAL



COP type G1B series

Car Operating Panel OPTIONAL

<Full Height Series>

COP-G1B-3B

White light

KB-3
(White light)

PRM-2 OPTIONAL

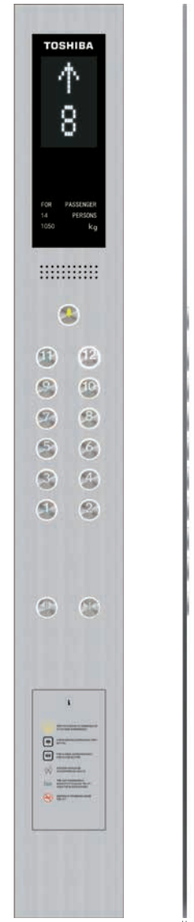
The actual product colors may vary slightly from those printed colors in this catalog.

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

Operation Systems

COP type G1W series

Car Operating Panel OPTIONAL



COP-G1W-7B

3mm

White light

KB-7
(White light)

DLX-24 OPTIONAL

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

COP type G1K series

Car Operating Panel OPTIONAL

COP-G1K-7A
OPTIONAL

3mm

Orange light

KB-7
(Orange light)

DLX-21 OPTIONAL

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

Operation Systems

COP type G1U series

Car Operating Panel OPTIONAL

COP-G1U-1A
OPTIONAL

20mm

Orange light

GS-1
(Orange light)

TL-1 OPTIONAL

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

COP type G1S series

Car Operating Panel STANDARD

COP-G1S-1A
STANDARD

10mm

Orange light

GS-1
(Orange light)

SL-V1 STANDARD

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

Operation Systems

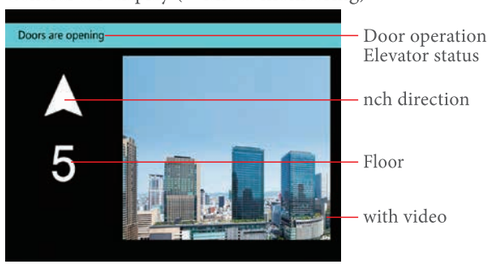
Full color LCD indicator

Large LCD indicator for car operation panel OPTIONAL

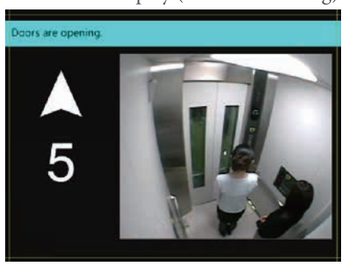
These 10.4 inch and 8.4 inch LCD indicators are capable of displaying in the elevator's various conditions (emergency operations, maintenance status) in large icons and letter in highly visible colors.

10.4 inch display for car operation panel

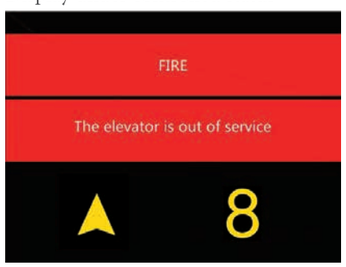
General car display (Without monitoring)



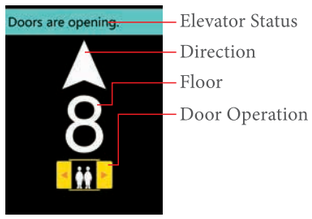
General car display (With monitoring)



Display under controlled status



8.4 inch display for car operation panel



▲With monitoring

▲With video

▲Fire emergency operation

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

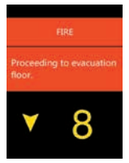
5.7 inch display for car operation panel

General car display

With monitoring

With video

Controlled status



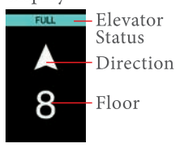
LCD hall indicator and button OPTIONAL

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

HIB-G1L-43B-7A

OPTIONAL

General hall display



Controlled status

▲5.7 inch display

LCD hall indicator OPTIONAL

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

General hall display

Hall controled display

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

Operation Systems

G1L / G1W series

Hall Indicator Button Panel

HIB-G1L-43B-7A
(4.3 inch LCD)

3mm

OPTIONAL

HIB-G1W-7A

3mm

OPTIONAL

HIB-G1W-D2

3mm

OPTIONAL

Installation for Hall Indicator Button

*G1S, G1U Series

- Thick type design and compact size
- Φ60 threading holes prevent damage to the building

*G1K Series : Thin type design for faceplate with a box on the back of the plate. The sleeve of the wall is necessary for mounting.

Simple Installation Structure

*G1S, G1U Series

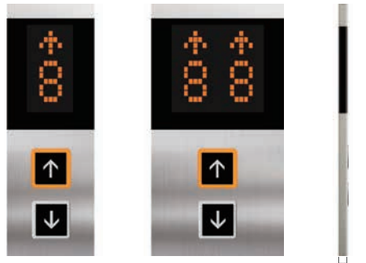
- Hidden screw fixing, better aesthetic, secure, steal-proof

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

G1S / G1K / G1U series

Hall Indicator Button Panel

One Car　Two Car



HIB-G1S-1A　HIB-G2S-1A　18mm

STANDARD

*"Operation indicator" cannot be mounted on the faceplate of Hall indicator button.

One Car　Two Car

HIB-G1K1-7A　HIB-G2K1-7A　3mm

OPTIONAL

*"Operation indicator" can mount on the faceplate of Hall indicator button.

HB-G1S-1A　18mm

STANDARD

One Car　Two Car

HIB-G1K2-D2　HIB-G2K2-D2　3mm

OPTIONAL

One Car　Two Car

HIB-G1U-4A　HIB-G2U-4A　18mm

OPTIONAL

*"Operation indicator" cannot be mounted on the faceplate of Hall indicator button.

HB-G1K-7A　3mm

OPTIONAL

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

Operation Systems

Digital LED dot type

Car and hall indicator display

COP-G1K-D2

Orange light

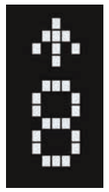
White light

One Car

HIB-G1K2-D2

Orange light

White light



Detail of display

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

Hall Lantern and Hall Indicator

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)

HI-G1-O

HI-G34-O

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

Operation Systems

Button Variation

For use with series G1S / G1U only.

STANDARD

Lighting off

GS-1

Orange light

GS-1

White light

GS-1

GS-2

GS-2

GS-2

OPTIONAL

Lighting off

GS-3

Orange light

GS-3

White light

GS-3

GS-4

GS-4

GS-4

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

For use with series G1A / G1B / G1L / G1W / G1K only. OPTIONAL

Lighting off

KB-1

KB-2

KB-3

KB-4

KB-5

KB-6

KB-7

KB-8

Orange light

KB-1

KB-2

KB-3

KB-4

KB-5

KB-6

KB-7

KB-8

White light

KB-1

KB-2

KB-3

KB-4

KB-5

KB-6

KB-7

KB-8

Lighting off

UB-1

UB-2

Amber light

UB-1

UB-2

As for UB-1 and UB-2 type, only amber light buttons are available.

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

Color & Material Variations

Color Variation

Paint colors for steel panels STANDARD

1N 3N 37YR 41YR 52YR

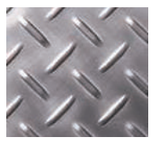
62Y 66Y 77G 114PB

Vinyl tile for car floor OPTIONAL

MID806 MID809 MID815 MID823 MID829

MID831 MID832 MID833 MID834

Checker plate for car floor OPTIONAL



*The publication of this page is an example of design. Please contact us for other designs.

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

Sample of etching patterns for stainless steel OPTIONAL

DZ-001 DZ-007 DZ-024 DZ-031

DZ-017 DZ-018 DZ-020 DZ-004

Sample design of tessellated for car floor OPTIONAL

TSF-1A TSF-1B TSF-1C TSF-1D

TSF-1E TSF-2A TSF-2B TSF-2C

Marble of car floor OPTIONAL

JRFL002 JRFL020 JQ-1012 JQ-1013

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

Other Optional Items

Hand rail OPTIONAL

Hairline finish stainless steel round type hand rail

Hairline finish stainless steel flat type hand rail

DLX-21 OPTIONAL

Mirror OPTIONAL

Mirror made of glass

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

Parking switch

Parking switch is separated from HIB, better design flexibility for faceplate

Fireman switch OPTIONAL

Applied to Fireman switch for “Fireman’s operation” in case of provided safety functions

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

TOSHIBA

TOSHIBA MACHINE-ROOM-LESS ELEVATORS
STANDARD PASSENGER ELEVATOR

SPACEL-Ⅲ

2nd Edition

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

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212-8585, Japan
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- The data given in this catalog are subject to change without notice.

* Revised publication effective Sept. 2019

GK-F188(2)-19.09-4000-19.09(NS)

TOSHIBA ELEVATOR AND BUILDING SYSTEMS CORPORATION

THE SOLUTIONS

COMPANY SOLUTIONS

Toshiba Elevator and Building Systems Corporation has built a framework which encompasses all aspects from system development to production, sales to marketing, installation, adjustment, maintenance and services in order to provide clients with the highest quality products and services.
Utilizing the comprehensive technological infrastructure developed by Toshiba Group in more than 140 years since its foundation, we aim to enhance the leading edge technology and quality that we used to develop the ultra high speed elevator, harnessing Toshiba's technological innovations to their fullest extent. To meet clients' expectations and requirements for safe and pleasant elevators as well as constantly pursuing further innovation and improvement. Furthermore, we are aiming to strengthen system development, production, enhancing sales channel and sales partnership to expand in the global market.

CONCEPT of SPACEL-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 Lineup

SPACEL-Ⅲ is well-suited to office buildings and apartments by the compact designed machine-room-less elevator.

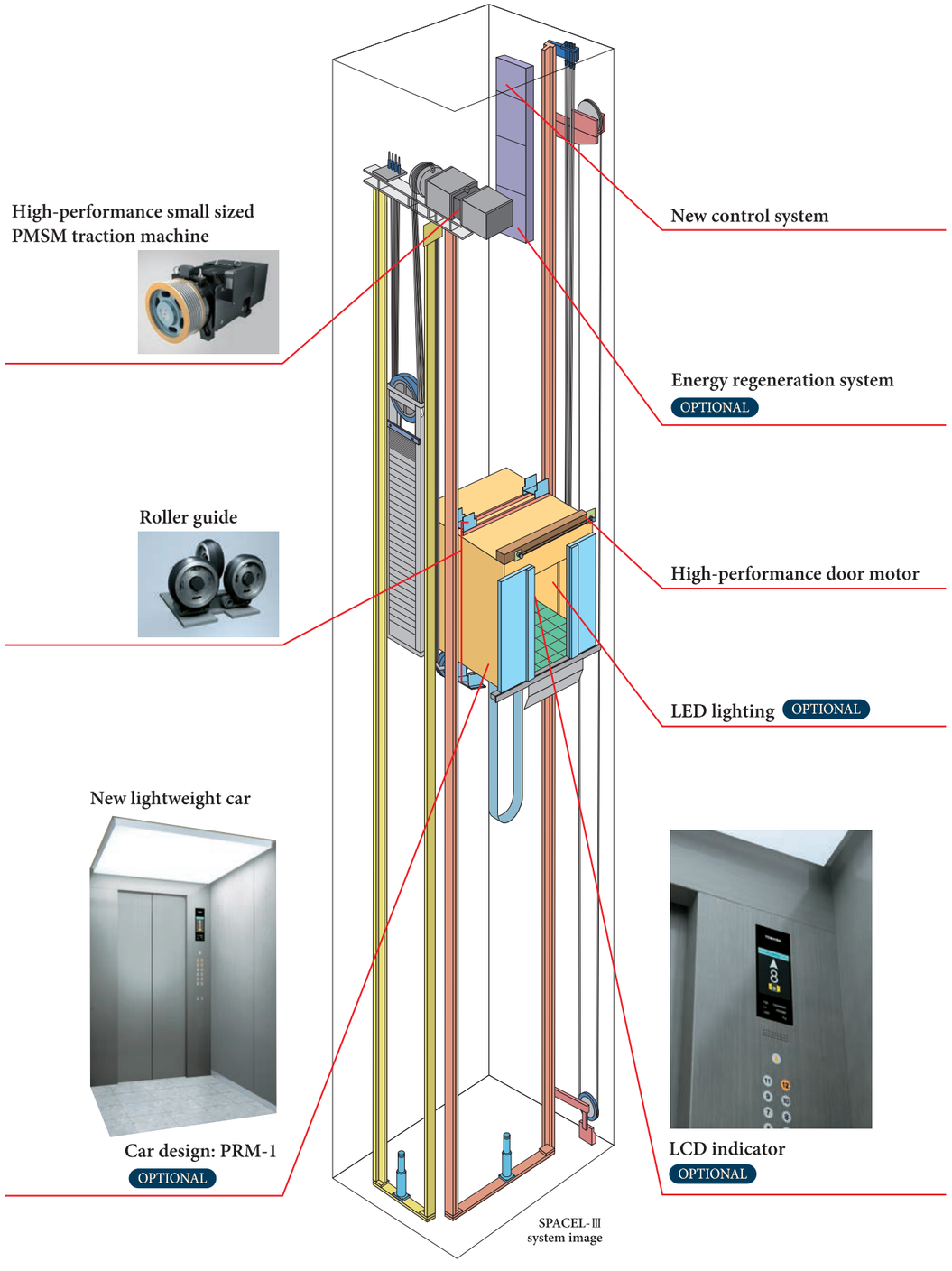
Scope of application	Range of application
Passengers (persons)	8–26 persons
Rated load (kg)	630–2000 kg
Rated speed (m/s)	1–2 m/s

Rated speed (m/s)	2	SPACEL-Ⅲ								
	1.75									
	1.6									
	1									
Rated load (kg)		630	825	1050	1150	1275	1350	1600	1800	2000
Type		P8	P11	P14	P15	P17	P18	P21	P24	P26

Note
The above scope complies with GB7588:2003 standard.

Contents

TECHNOLOGY



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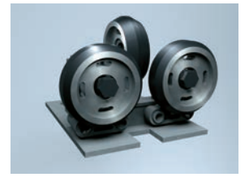
New Technology

Traction Machine Designed and Manufactured by Toshiba

- Toshiba has manufactured motors for over 100 years since 1895. The motors produced by Toshiba promise better quality assurance and quality control.
- 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.

Use of Roller Guide



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.

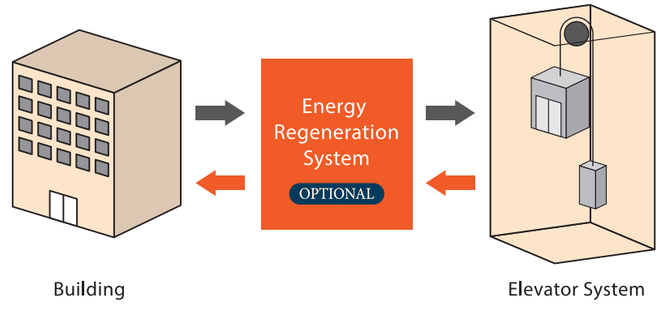
New Control Systems

A high performance CPU is employed for advanced newly developed control system. 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

Note: Applies to specification for models with a capacity of less than 1050kg and fewer 14 persons.

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).



*This optional system may not be suitable for certain buildings. Please contact us for more information.

TECHNOLOGY

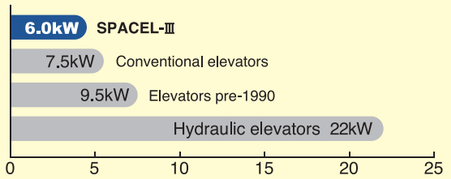
Environmental issues

In order to propose safe and secure elevator, SPACEL-Ⅲ focus on environmental issue. The advance technologies for energy consumption and resource saving concept offers high concerns for environmental consciousness.

Energy Saving

SPACEL-Ⅲ employs a newly developed compact gearless PMSM motor which enables high energy efficiency. Furthermore, by using a gearless motor, gear oil is not needed, which contributes to saving natural resources.

Compared to elevators before 1990's, energy consumption has decreased 40% and for hydraulic elevators, 80% is saved.



*Comparison with"SPACEL-Ⅲ" (capacity:1050kg speed:60m/min) and "TOSHIBA STANDARD PASSENGER ELEVATOR","Cellebellum VFW"(capacity:1000kg speed:60m/min)

Energy Regeneration System OPTIONAL

Toshiba focuses on environmental conservation. The consumption of energy feedback system is different from that of regenerative resistance. 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 and suppress a temperature increase in the machine room, which results in over 38% energy conservation (with the assumption of 1050kg, 1.75m/s, 12-hour operation per day, 25 days per month).

Note: Applies to specification for models with a capacity of less than 1050kg and fewer 14 persons.

LED Lighting

Under equal brightness, an LED lighting system only consumes 10% of an incandescent lamp and 50% of an fluorescent lamp. (part of ceiling)

Car design : PRM-1 OPTIONAL

Resource Saving

Machine room less elevator

By eliminating machine room, various constructing procedure and materials will not be necessary.

Eliminating lubricant oil for guide rail

By employing roller guide for both car and counter weight, lubricant oil will not be necessary which guide shoe required.

Reducing Hazardous Materials

Reduction of lead use

By changing method to tie rope, lead is not necessary in order to tie rope resulting to reduce lead use.

Employing LED lightings

By employing LED light, various materials used for light became mercury free.

Lead-free Design of Circuit Board, RoHS Compliance and Elimination of Specific Chemical Substances (15 Classifications)

Continuous concern on the RoHS compliance, eliminating 15 classifications of specific chemical substances, and using the lead-free technique for main circuit boards.

SPACEL-Ⅲ, approved as Toshiba Group's "Excellent ECP" product.

Toshiba Group seeks to create environmentally conscious products and for all the products created, we set a goal to develop No.1 environmentally suitable products. Within Toshiba group, we approve environmentally high potential products as "Excellent ECP" products and SPACEL-Ⅲ has been approved as an "Excellent ECP".

STYLISH and COMFORTABLE

PRM-1
Ceiling
All-area Glass fiber cloth lighting
(LED lights)

New Ceiling Design

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Wide variety of newly developed LED lighting available. *Note 1

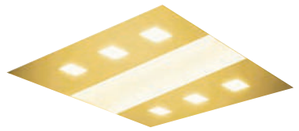
*Development of environmentally conscious LED lighting.

LED lighting is mercury-free, energy-saving and long life.
The electric consumption fall about 85% and the product life time will be increased 20 times.
Therefore LED lighting reduces CO_2 emissions.

Note 1: Applied in car design SL-V1, SL-V2, SL-3, TL-1, DLX-21, DLX-22, DLX-23, DLX-24, DLX-25, PRM-1, PRM-2.
Note 2: Car design SL-1, SL-2 has four square shaped lights at the center, and round LED light at corners.

PRM-1

PRM-2



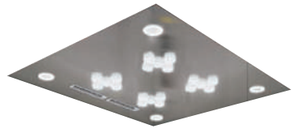
DLX-25 / DX-25

DLX-24 / DX-24

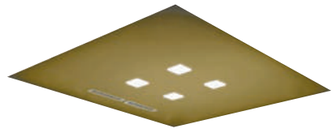
DLX-23 / DX-23

DLX-22 / DX-22

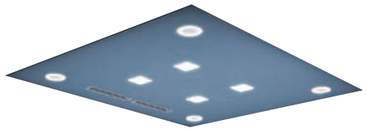
DLX-21 / DX-21



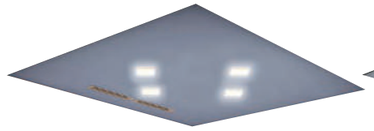
TL-1



SL-V1



SL-1



SL-V2

SL-2

SL-3

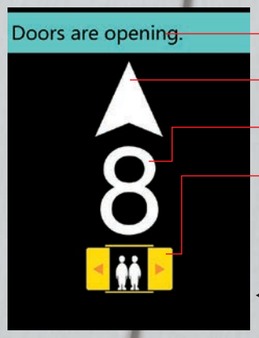
The actual product colors may vary slightly from those printed colors in this catalog.

STYLISH and COMFORTABLE

Large LCD indicator for car operation panel

These 10.4, 8.4 and 5.7 inch LCD indicators are capable of displaying the elevator's various conditions (emergency operations, maintenance status) in large icons and letters in highly visible colors.

OPTIONAL



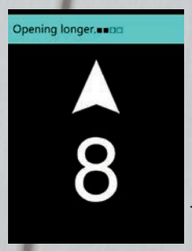
Elevator Status

Direction

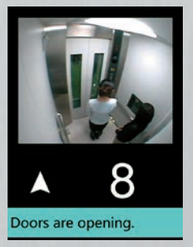
Floor

Door Operation

◀8.4 inch LCD
(POP-G1L)



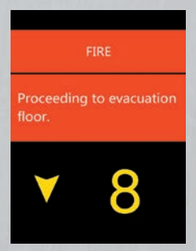
◀5.7 inch LCD
(COP-G1L)



OPTIONAL

Coordination with car operation panel indicator display and car security camera.

Large LCD indicator is capable of displaying visuals linked from car security camera.
There is no necessity to provide an extra monitor to display security camera's image.



Display examples
for car indicator display

◀Fire emergency operation

During emergency operation,
the display will announce the message in red.

*Capable of displaying optional operations such as fire emergency operation.

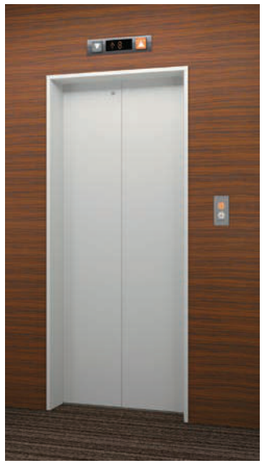
The actual product colors may vary slightly from those printed colors in this catalog.

Hall Design

The publication of this page is an example of design.
Please refer to the “DESIGN SELECTION” catalog for each the condition and other designs.

Hall design 1

OPTIONAL



Hall design 2

OPTIONAL

Hall design 3

OPTIONAL

Hall design 4

OPTIONAL

Hall design 5

OPTIONAL

Hall design 6

STANDARD

*Note : Provided hall design specifications with the wide type jamb and transoms, when there is a need to adapt to fireproof specifications.

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

Functions

○ : STANDARD △ : OPTIONAL

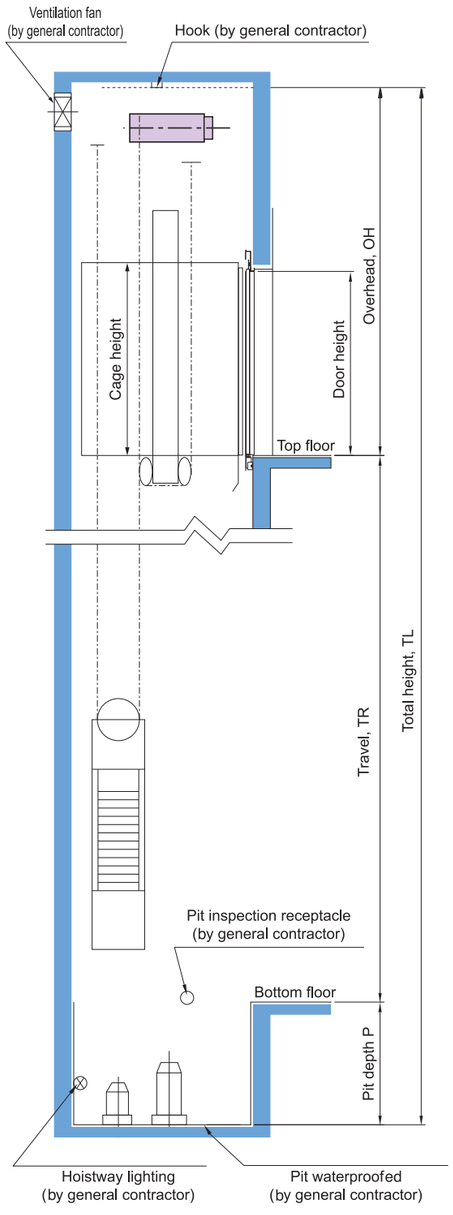
Functions	Notes	Descriptions	
Operations	Simplex selective-collective fully automatic operation	Fully automatic operation by hall and car calls for single car	○
	Duplex selective collective fully automatic operation (Note 1)	Fully automatic operation for 2 cars in the same group	△
	3 or 4-car group supervisory control system	Fully automatic operation for 3 or 4 cars in the same group	△
	Group supervisory control system	For supervisory operation of groups of more than 4 cars, please contact us	△
	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	△
Safety Functions	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	○
	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	○
	Door open when the lift car is overloaded	The doors will re-open when over load is detected, even during the closing of doors.	○
	Fireman's operation	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	△
	Power failure emergency operation	In the event of power failure, all lifts will return to the designated floor by emergency power supply from the building to allow passengers to exit	△
	Automatic landing during power failure (TOSLANDER)	In the event of power failure, the lift will land at the nearest floor by emergency battery	△
	Earthquake emergency operation	In the event of an earthquake, the elevator will detect the seismic signal and land at the nearest floor	△
	In-car emergency lamp (self-charging)	In the event of power failure, the in-car emergency lamp will be activated	○
	Emergency call button	A button for passenger to make an emergency call when they are trapped inside the lift	○
	Emergency operation indication at COP	In the event of an emergency, the emergency operation status will be displayed at COP	○
	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	△
Service Functions	Home landing	To reduce passenger waiting time, the lift will return to the designated floor and stand by	△
	Service floor cut-off selection	Disables the designated floor service	△

Notes
1: Not applicable to lift car with through door.
2: > 5 floors and car weight < 150kg.

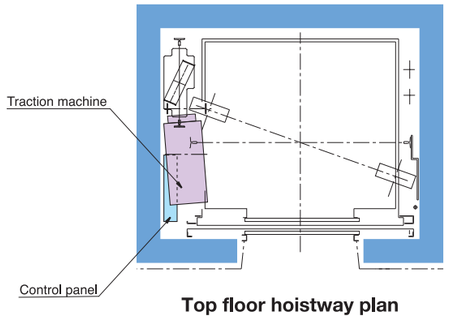
○ : STANDARD △ : OPTIONAL

Functions	Notes	Descriptions	
Service Functions	Full car bypass (Note 2)	When the lift car is full, the lift will bypass all hall calls and go straight to the designated floor	○
	Car call cancellation	The floor call can be cancelled from the COP by pressing the floor button twice within 3 second	○
	Nuisance call cancellation	Incorrect or nuisance floor calls can be cancelled to eliminate unnecessary operation	○
	Repeated door opening	When an obstacle is detected, the door will repeatedly open and close until the obstacle is removed	○
	Adjustable door opening time	Adjusts the door opening time to reflect building usage	○
	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	△
	Hall lantern	The hall lantern will light up when the lift arrived	△
	Sub-car operating panel	Additional car operating panel	△
	Car full load indicator	"Full Load" will display on the hall indicator when the lift car is full	△
	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	○
	"Door Open" button lamp (for automatically cut-off car lighting)	The "Door Open" button will remain lit when the lift car light is turned off automatically	○
	Nuisance call cancellation at reversal	Cancel intentionally registered nuisance calls automatically in the reversal travel direction	○
	Multi-channel intercom	The intercom system can communicate with multi-stations simultaneously	○
	Designated floor stop operation	Automatically stops the lift at the designated floor for crime prevention purposes	△
	Card access system	Allows activation of the disnated floor call by IC card ※ Card Access System by others	△
	Speech synthesizer	Announces car operations	△
	Supervisory panel	Located in the building control room, etc. to monitor the status and control of each lift	△

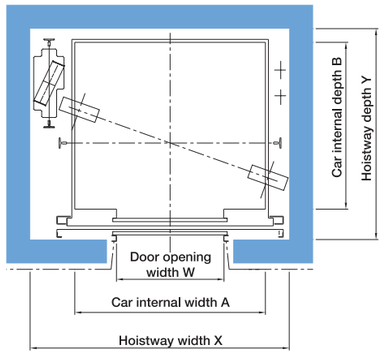
Hoistway Layout



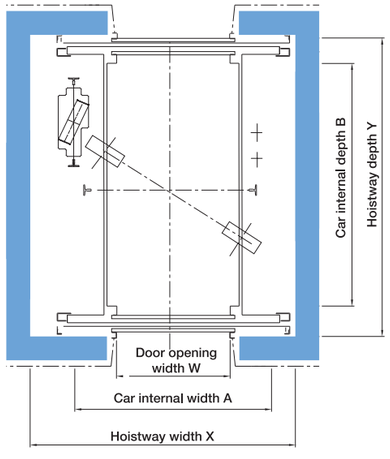
Hoistway section



Top floor hoistway plan



Typical floor hoistway plan (W, D)



Typical floor hoistway plan (D2)

Specifications

Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm) X×Y	OH	P	Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
P8-CO60	W	8	630	1	1400×1100	800	1985×1610	3700	1300	3.6	40	80
						900	2145×1610					
	D				1100×1400	800	1835×1725					
						900	2020×1725					
P8-CO96	W			1.6	1400×1100	800	1985×1610	3900	1400	5.8	40	100
						900	2145×1610					
	D				1100×1400	800	1835×1725					
						900	2020×1725					
P8-CO105	W			1.75	1400×1100	800	1985×1610	3950	1450	6.3		
						900	2145×1610					
	D				1100×1400	800	1835×1725					
						900	2020×1725					
P8-CO120	W			2	1400×1100	800	1985×1610	4050	1650	7.2		
						900	2145×1610					
	D				1100×1400	800	1835×1725					
						900	2020×1725					
P11-CO60	W	11	750	1	1400×1350	800	2000×1720	3700	1300	3.6	40	80
						900	2100×1720					
	D				1100×1700	800	1850×2000					
						900	2020×2000					
	D2				1100×1700	800	1850×2150				※	
						900	2020×2150					
P11-CO96	W			1.6	1400×1350	800	2000×1720	3900	1400	5.8	40	100
						900	2100×1720					
	D				1100×1700	800	1850×2000					
						900	2020×2000					
	D2				1100×1700	800	1850×2150				※	
						900	2020×2150					
P11-CO105	W			1.75	1400×1350	800	2000×1720	3950	1450	6.3	40	
						900	2100×1720					
	D				1100×1700	800	1850×2000					
						900	2020×2000					
	D2				1100×1700	800	1850×2150				※	
						900	2020×2150					
P11-CO120	W			2	1400×1350	800	2000×1720	4050	1650	7.2	40	
						900	2100×1720					
	D				1100×1700	800	1850×2000					
						900	2020×2000					
	D2				1100×1700	800	1850×2150				※	
						900	2020×2150					
P14-CO60	W	14	950	1	1600×1400	900	2200×1770	3700	1300	3.6	40	80
						1000	2300×1770					
						1100	2400×1770					
	D				1100×2100	900	1850×2400					
						1000	2020×2400					
	D2				1100×2100	900	1850×2550				※	
						1000	2020×2550					
P14-CO96	W			1.6	1600×1400	900	2200×1770	3900	1400	5.8	40	100
						1000	2300×1770					
						1100	2400×1770					
	D				1100×2100	900	1850×2400					
						1000	2020×2400					
	D2				1100×2100	900	1850×2550				※	
						1000	2020×2550					
P14-CO105	W			1.75	1600×1400	900	2200×1770	3950	1450	6.3	40	
						1000	2300×1770					
						1100	2400×1770					
	D				1100×2100	900	1850×2400					
						1000	2020×2400					
	D2				1100×2100	900	1850×2550				※	
						1000	2020×2550					
P14-CO120	W			2	1600×1400	900	2200×1770	4050	1650	7.2	40	
						1000	2300×1770					
						1100	2400×1770					
	D				1100×2100	900	1850×2400					
						1000	2020×2400					
	D2				1100×2100	900	1850×2550				※	
						1000	2020×2550					

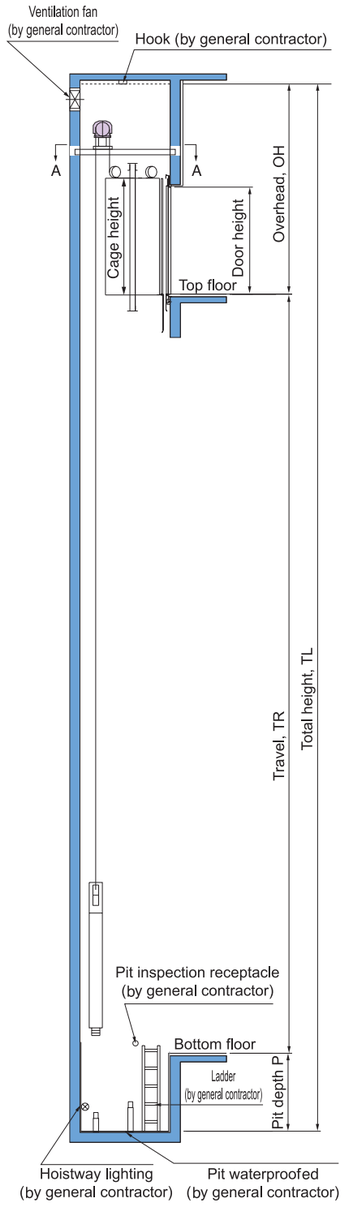
※ Please consult our local distributor.

Note:

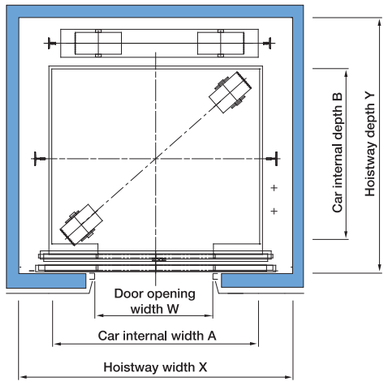
- The above table complies with GB7588:2003 standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Please contact to our local distributor to check for other standards.
- Hoistway dimensions are the minimum dimension after the construction 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.
- The above data table of “OH” dimensions is based cage height: 2300mm. Please contact our local distributor to check for other conditions.
- 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.

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

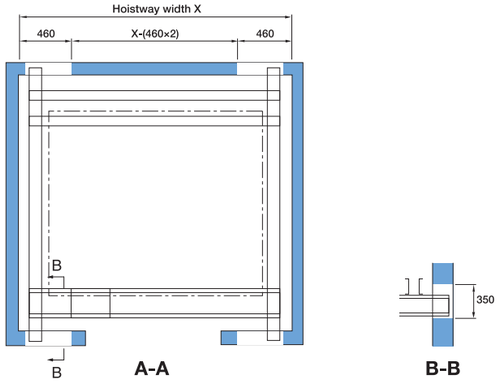
Hoistway Layout



Hoistway section

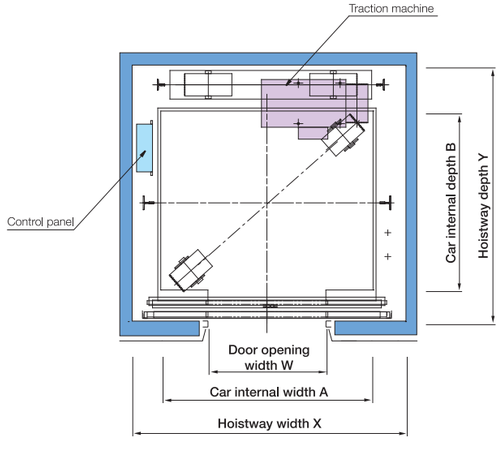


Typical floor hoistway plan



A-A

B-B



Top floor hoistway plan

Specifications

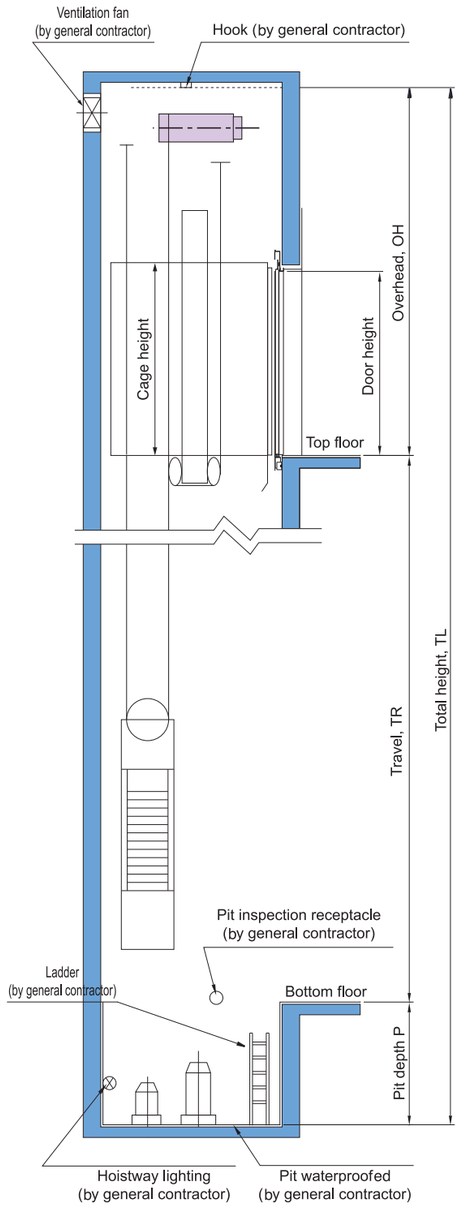
Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm) X×Y	OH	P	Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
P15-CO60	W	15	1150	1	1800×1500	1000	2400×2150	4300	1300	7.0	48	80
						1100						
P15-CO96	W			1.6		1000		4500	1400	12.0		100
						1100						
P15-CO105	W			1.75		1000		4550	1450	12.0		
						1100						
P15-CO120	W			2		1000		4800	1600	14.0		
						1100						
P18-CO60	W	18	1350	1	2000×1500	1100	2600×2150	4300	1300	8.0	48	80
P18-CO96	W			1.6				4500	1400	14.0		100
P18-CO105	W			1.75				4550	1450	14.0		
P18-CO120	W			2				4800	1600	16.0		
P21-CO60	W	21	1600	1	2000×1700	1100	2650×2350	4300	1300	10.0	48	80
	W					1200						
P21-CO96	W			1.6		1100		4500	1400	16.0		100
	W					1200						
P21-CO105	W			1.75		1100		4550	1450	18.0		
	W					1200						
P21-CO120	W			2		1100		4800	1600	20.0		
	W					1200						
P24-CO60	W	24	1800	1	2100×1750	1200	2750×2400	4300	1300	12.0	48	80
P24-CO96	W			1.6				4500	1400	18.0		100
P24-CO105	W			1.75				4550	1450	20.0		
P24-CO120	W			2				4800	1600	22.0		
P26-CO60	W	26	2000	1	2100×1950	1200	2750×2600	4300	1300	12.0	48	80
P26-CO96	W			1.6				4500	1400	20.0		100
P26-CO105	W			1.75				4550	1450	22.0		
P26-CO120	W			2				4800	1600	24.0		

Note:

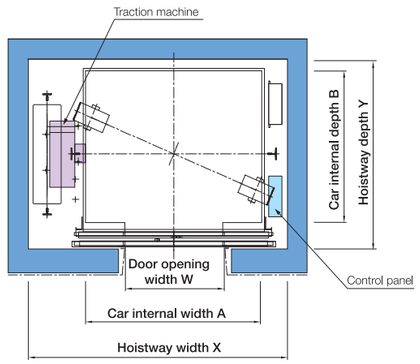
- The above table complies with GB7588:2003 standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Please contact to our local distributor to check for other standards.
- Hoistway dimensions are the minimum dimension after the construction 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.
- The above data table of “OH” dimensions is based cage height: 2300mm. Please contact our local distributor to check for other conditions.
- 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.

W: Wide car

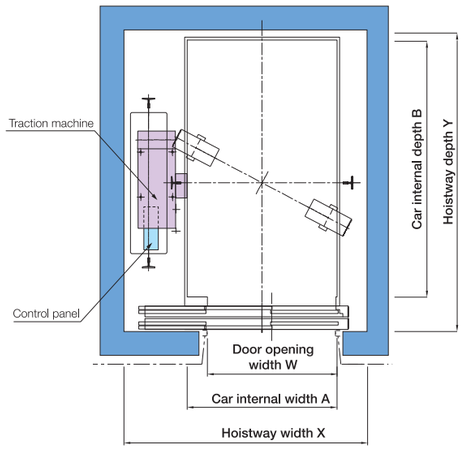
Hoistway Layout



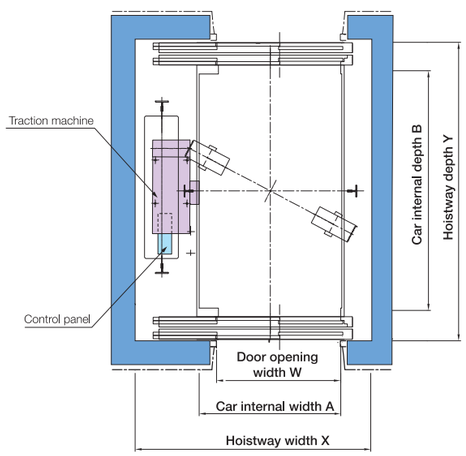
Hoistway section



Typical floor hoistway plan (W)



Typical floor hoistway plan (D)



Typical floor hoistway plan (D2)

Specifications

Type		Nos.of Person	Capacity (kg)	Speed (m/s)	Cage size Internal(A×B) (mm)	Door with W (mm)	Hoistway size(mm)			Motor Capacity (kW)	Max.Service Stops(s)	Max.Travel (m)
							X×Y	OH	P			
P15-CO60	W	15	1150	1	1800×1500	1000	2600×1840	4100	1300	7.0	48	80
	W					1100	2650×1840					
P15-CO96	W			1.6		1000	2600×1840	4300	1400	12.0		100
	W					1100	2650×1840					
P15-CO105	W			1.75		1000	2600×1840	4350	1450	12.0		
	W					1100	2650×1840					
P15-CO120	W			2		1000	2600×1840	4600	1600	14.0		
	W					1100	2650×1840					
P17-CO60	W	17	1275	1	2000×1400	1100	2800×1800	4100	1300	8.0	48	80
P17-CO96	W			1.6				4300	1400	12.0		100
P17-CO105	W			1.75				4350	1450	14.0		
P17-CO120	W			2				4600	1600	16.0		
P17-2S60	D	17	1275	1	1200×2300	1100	2050×2710	4100	1300	8.0	48	80
P17-2S96	D			1.6				4300	1400	12.0		100
P17-2S105	D			1.75				4350	1450	14.0		
P17-2S120	D			2				4600	1600	16.0		
P17-2S60	D2	17	1275	1	1200×2200	1100	2050×2870	4100	1300	8.0	※	
P17-2S96	D2			1.6				4300	1400	12.0		
P17-2S105	D2			1.75				4350	1450	14.0		
P17-2S120	D2			2				4600	1600	16.0		
P18-CO60	W	18	1350	1	1800×1500	1100	2800×1840	4100	1300	8.0	48	80
P18-CO96	W			1.6				4300	1400	14.0		100
P18-CO105	W			1.75				4350	1450	14.0		
P18-CO120	W			2				4600	1600	16.0		
P21-CO60	W	21	1600	1	2000×1700	1100	2825×2050	4100	1300	10.0	48	80
	W					1200	2875×2050					
P21-CO96	W			1.6		1100	2825×2050	4300	1400	16.0		100
	W					1200	2875×2050					
P21-CO105	W			1.75		1100	2825×2050	4350	1450	18.0		
	W					1200	2875×2050					
P21-CO120	W			2		1100	2825×2050	4600	1600	20.0		
	W					1200	2875×2050					
P21-2S60	D	21	1600	1	1400×2400	1200	2275×2810	4100	1300	10.0	48	80
P21-2S96	D			1.6				4300	1400	16.0		100
P21-2S105	D			1.75				4350	1450	18.0		
P21-2S120	D			2				4600	1600	20.0		
P21-2S60	D2	21	1600	1	1400×2300	1200	2275×2970	4100	1300	10.0	※	
P21-2S96	D2			1.6				4300	1400	16.0		
P21-2S105	D2			1.75				4350	1450	18.0		
P21-2S120	D2			2				4600	1600	20.0		
P24-CO60	W	24	1800	1	2100×1750	1200	2925×2100	4100	1300	12.0	48	80
P24-CO96	W			1.6				4300	1400	18.0		100
P24-CO105	W			1.75				4350	1450	20.0		
P24-CO120	W			2				4600	1600	22.0		
P26-CO60	W	26	2000	1	2100×1950	1200	2925×2300	4100	1300	12.0	48	80
P26-CO96	W			1.6				4300	1400	20.0		100
P26-CO105	W			1.75				4350	1450	22.0		
P26-CO120	W			2				4600	1600	24.0		

※ Please consult our local distributor.

Note:

- The above table complies with GB7588:2003 standards.
- In case of travel is 40m or more, add 150mm to OH dimension and TC dimension at the above-stated dimension.
- Please contact to our local distributor to check for other standards.
- Hoistway dimensions are the minimum dimension 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.
- The above data table of “OH” dimensions is based cage height: 2300mm. Please contact our local distributor to check for other conditions.
- 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.

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

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 ±10% for the motor, and ±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