



Elevator Plan Guide Book

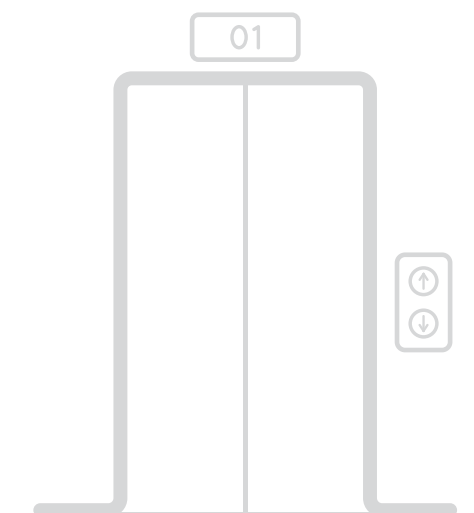
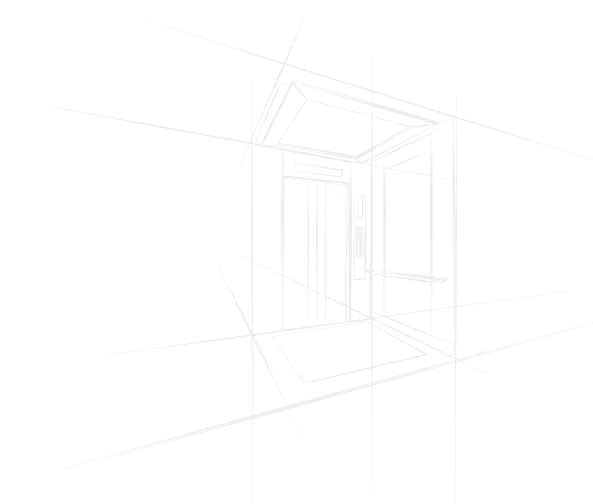
PASSENGER ELEVATOR

승객용 엘리베이터



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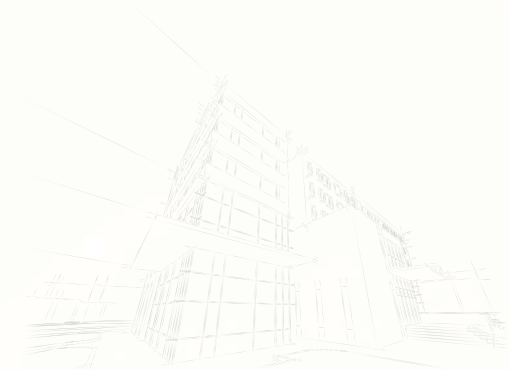
Global Elevator Design **DOEL** Elevator Solution



앞선 생각으로 세상을 이끌다
“LEAD IT”



We do Elevator Design
We do next level
We are DOEL



Global Elevator Design **DOEL** Elevator Solution



CONTENTS

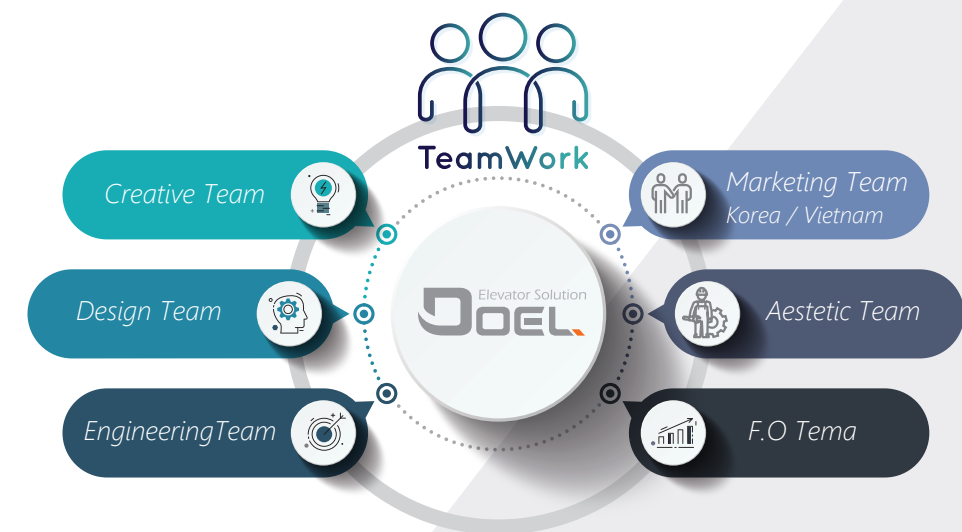
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We, Doel Solution Korea, make your building more attractive, effective and valuable.

Currently, we are offering the state-of-art designs with advanced Green Technologies in various buildings from residential and office buildings to commercial complexes in both domestic and overseas markets.

In addition, Doel Solution Korea not only has designed and produced elevators for customers convenience but also has offered comforts by combining new materials of high quality, latest technology, and elegant design.



Safety

Infrared Beam Light Curtain Protection System

DOEL elevator gives first priority to personal safety. With sensitive and concentrative infrared light curtain, it forms optical curtain protection safety net at the elevator door. It sensitively reacts to any person or object that enters into the probing plane.

Security and Convenience with RF Card Access System

Use of Building Access Cards to work with the elevator call button and the user ID in the Building Access Card will automatically register a call to provide convenience to residents, as well as preventing any non-authorized outsider gain access to the building.

Comfort

Excellent Car Ride

Using the gearless machine with high-quality disk brake provides a smooth and noiseless ride

Smooth and Pleasant Ride with Luxury Car Interior

The advanced VVF control technology applies to the door-motor system makes the door to start, speed up and brake curves smoothly.

Doel elevator's differentiated luxury car interior design will give you a comfortable trip in the car.

Energy Saving and Green Technology

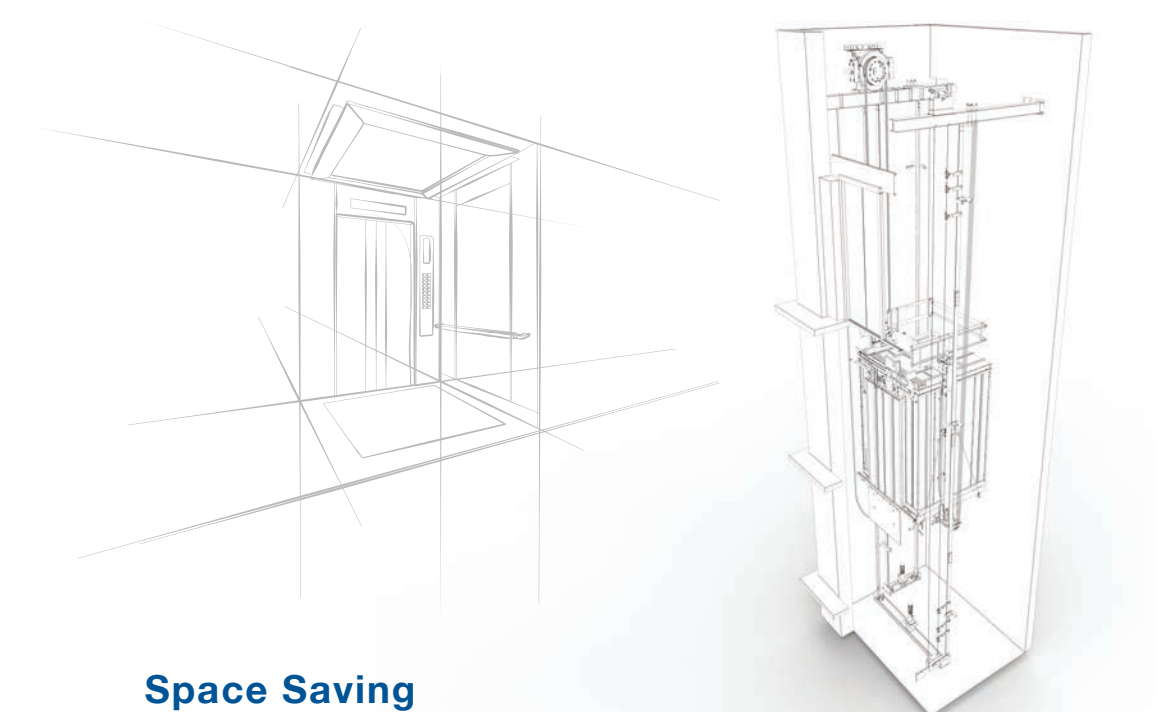
High-Performance Permanent Magnet Synchronous Gearless Traction Machine

Excellence driving performance, highly-efficient running smart figure with convenient layout saves at least 10% construction area with the same load geared elevator, it saves about 50% electric energy.

Energy Regenerating Technology (Regen-System)

Through energy feedback device, electric energy converted by potential energy produced when in elevator running gives back to the grid for the use of other electrical equipment in the building. This device could save up to 60% electric energy efficiently.

DOEL will make special design for your elevator.



Space Saving

It fully considers building space utilization rate and cost. Using a compact layout and flexible design style and cleverly integrating all kind of buildings, it is the first choice for modern individualized buildings.

Flexibility for building design

It can save construction area and with artistic and flexibility, which reduces comprehensive construction cost and give flexibility to building architects.

Convenient Maintenance and Flexible Layout

MRL Controller is located at top floor next to top landing door, traction machine is mounted on beam at top of shaft, which make the connection between them short enough, easy to repair and maintenance.



| CAR DESIGN

»» Standard



Mono-Smart 01

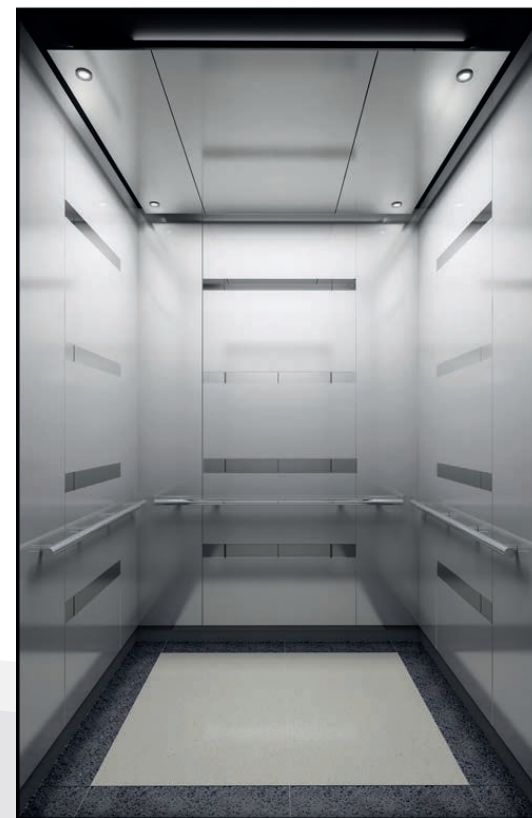
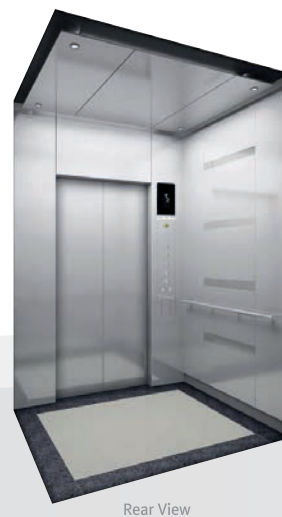
Ceiling	EC-06S
Car Door	STS Hairline + Laser Marking (LP-01)
Car Wall	STS Bead + STS Hairline + Center Panel Laser Marking (LP-01)
Handrail	HR 01 (Pol)
Floor	Deco Tile (FDT-05)



Mono-Smart 02

Ceiling	EC-03S
Car Door	STS Mirror + Laser Marking (LP-03)
Car Wall	STS Mirror + Laser Marking (LP-03)

Handrail	HR 01 (Pol)
Floor	Deco Tile



| CAR DESIGN

»» Standard

Mono-Smart 03

Ceiling	EC-02S
Car Door	STS Mirror + Laser Marking (LP-05)
Car Wall	STS Mirror + Laser Marking (LP-05)

Handrail	HR 01 (Pol)
Floor	Deco Tile (FDT-02)



Mono-Smart 04

Ceiling	DE-07
Car Door	STS Hairline + Etching (EP-067)
Car Wall	STS Hairline + Etching (EP-067)

Handrail	HR 01 (Pol)
Floor	Deco Tile



| CAR DESIGN

»»Standard



Front View

Mono-Smart 05

Ceiling DE-04
Car Door STS Mirror
Car Wall STS Bead + STS Mirror

Handrail HR 01 (Pol)
Floor Deco Tile (Design 01)

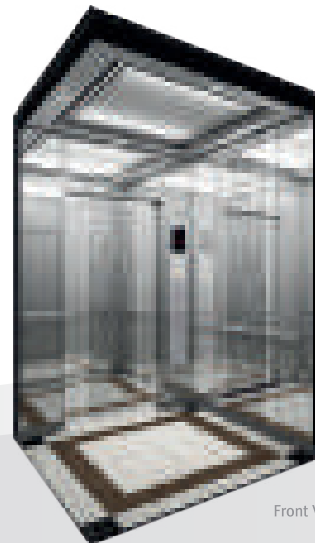


Rear View

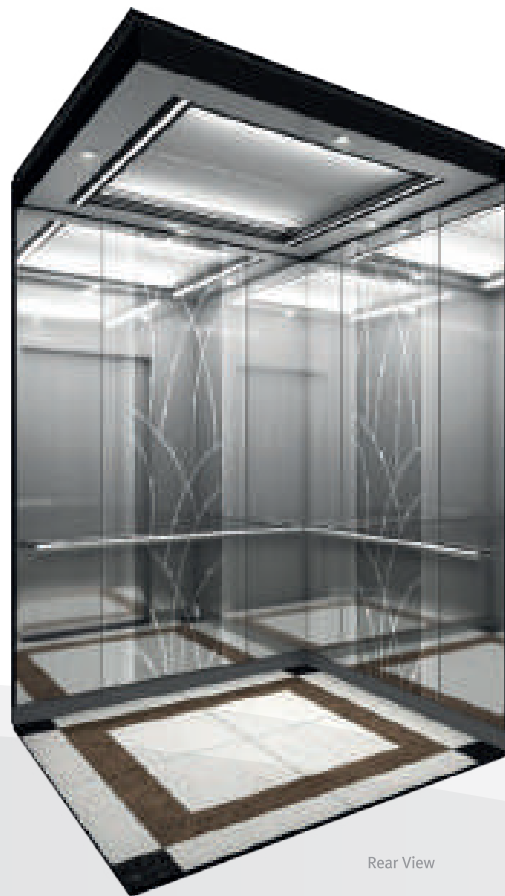
Mono-Smart 06

Ceiling Type : DE-05
Car Door STS Mirror + Etching (Line-02)
Car Wall STS Mirror + Etching (Line-02)

Handrail HR 01 (Pol)
Floor Deco Tile (Design 02)



Front View



Rear View

| CAR DESIGN

»»Standard

Mono-Zeta 01

Ceiling Type : DE-02
Car Door STS Hairline + Etching (EP-059)
Car Wall STS Bead + Etching (EP-086)

Handrail HR 01 (Pol)
Floor Marble (Kanstone)



Rear View

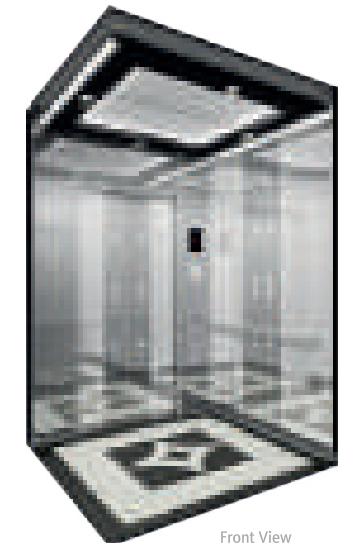


Front View

Mono-Zeta 02

Ceiling Type : DE-01
Car Door STS Mirror + Etching (Line-01)
Car Wall STS Bead + STS Mirror + Etching (Line-01)

Handrail HR 01 (Pol)
Floor Miraton



Front View



Rear View

Note
The printed image might be different than the actual design.
There may be a variance in car wall pattern depending on car size and capacity.

| CAR DESIGN

»»Standard



Rear View

Deluxe 01

Ceiling	EC-06S
Car Door	Inco Black Mirror + Line Etching
Car Wall	Inco Black Mirror + Line Etching STS-Hair Line
Handrail	HR 01 (Pol)
Floor	Marble (MB-03)



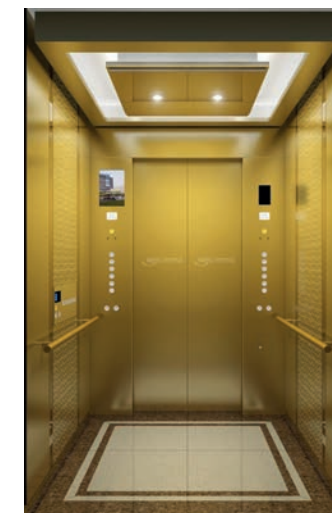
Front View

| CAR DESIGN

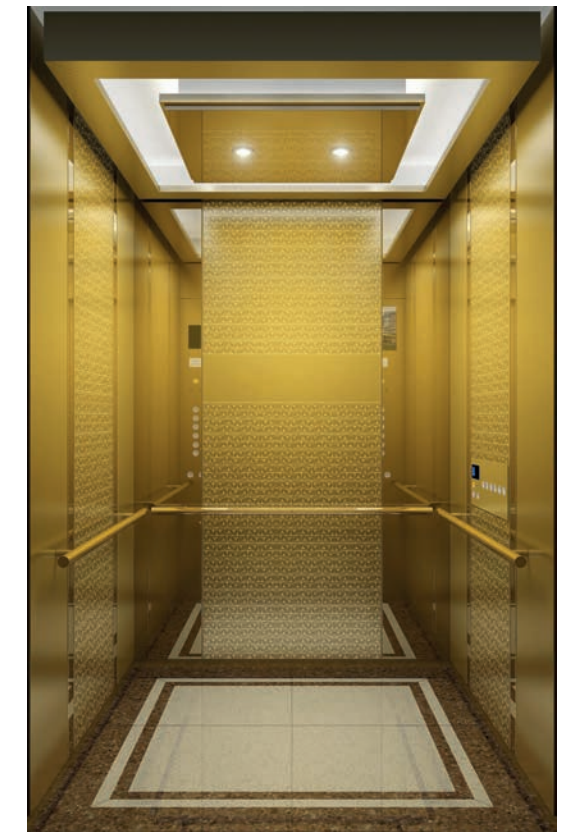
»»Standard

Mono-Zeta 04

Ceiling	Type : DE-10
Car Door	STS-HL
Car Wall	STS-PCM Saffiano + STS-MR + Marking (Chain)
Handrail	HR 01
Floor	Deco Tile (Art 01)



Front View



Rear View

Mono-Zeta 04

Ceiling	Type : DE-10
Car Door	STS-HL
Car Wall	STS-PCM Saffiano + STS-MR + Marking (Chain)
Handrail	HR 01
Floor	Deco Tile (Art 01)



Front View



Rear View

Deluxe 02

Ceiling	Type : CE-02L
Car Door	Stainless Bead Blast Ti-Bronze + Laser Pattern(LP-08)
Car Wall	Front:Stainless Hairline Ti-Black + Laser Pattern(LP-08) Side/Rear:Stainless Hairline Ti-Bronze+ Trim
Handrail	HR 01 (Pol)
Floor	Deco Tile (MB-02)



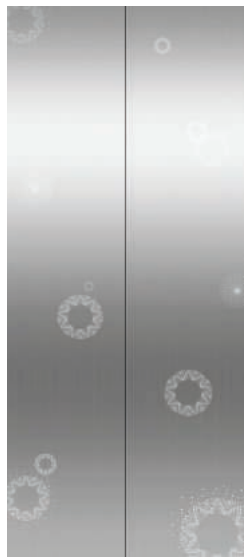
Rear View



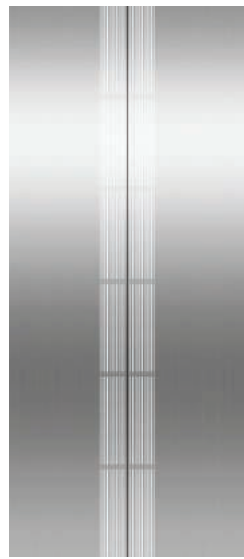
Front View

Note
The printed image might be different than the actual design.
There may be a variance in car wall pattern depending on car size and capacity.

ETCHING PATTERN



EP-01



EP-02



EP-03



EP-04



EP-05



EP-06



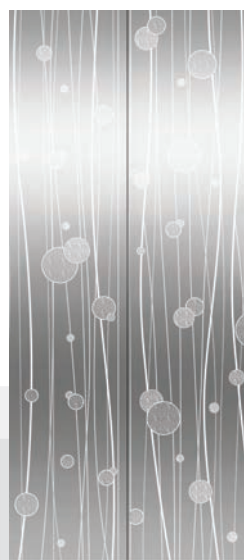
EP-07



EP-08



EP-029



EP-086



EP-059



EP-067

ENTRANCE DESIGN



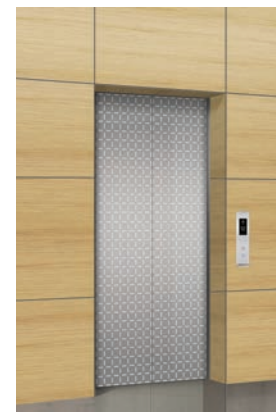
JAMB / J-311
JAMB : wide JAMB w/ Transom
Fixture : HPI + H.BT



JAMB / J-301
JAMB : wide JAMB w/o Transom
Fixture : Vertical IND(w/ H.BT)



JAMB / J-301 for MRL
JAMB : wide JAMB w/o Transom
Fixture : Vertical IND(w/ H.BT)



JAMB / J-101
JAMB : narrow JAMB
Fixture : vertical IND(w/ H.BT)



JAMB / J-101
JAMB : narrow JAMB
Fixture : vertical IND(w/ H.BT)



JAMB / J-101 for MRL
JAMB : narrow JAMB
Fixture : vertical IND(w/ H.BT)

HANDRAIL



HR-01



HR-02



HR-03

- Handrail Color



Ti-Gold



Ti-Bronze



Ti-Black

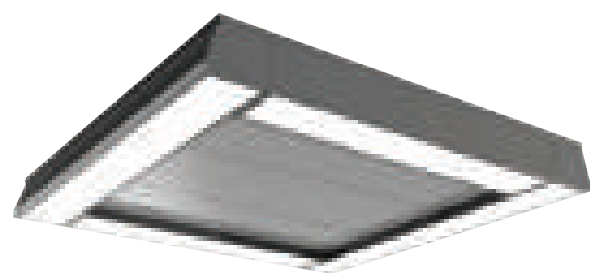
CEILING



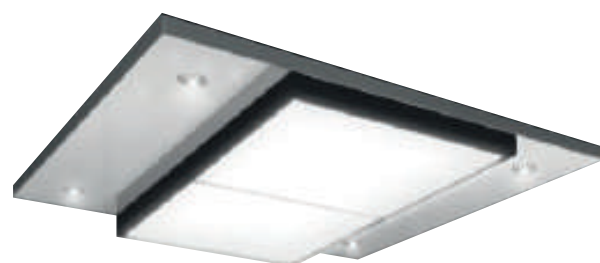
DE-01



DE-02



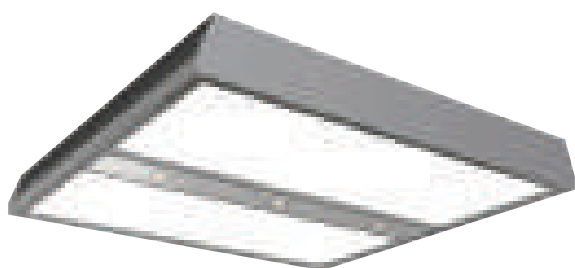
EC-06S



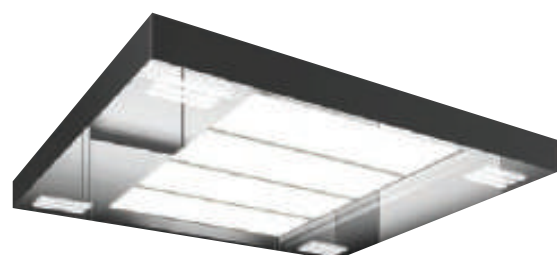
DE-04



DE-05



EC-02S



DE-07



EC-03S



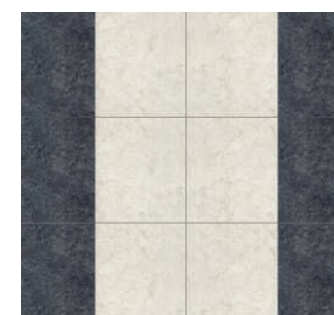
EC-01S



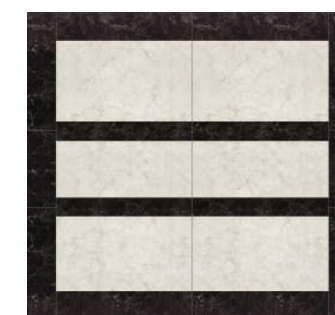
C-003

FLOOR

- Decotile



FDT-01



FDT-02



FDT-03



FDT-04

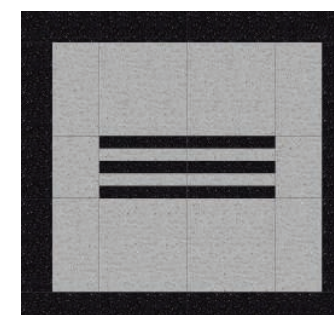


FDT-05



FDT-06

- Artificial Marble



MT-01

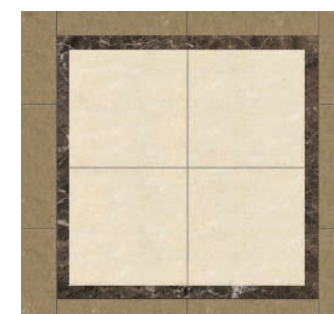


MT-02



MT-03

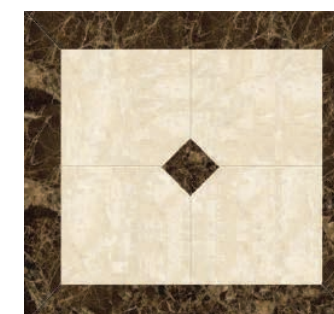
- Marble



MB-01



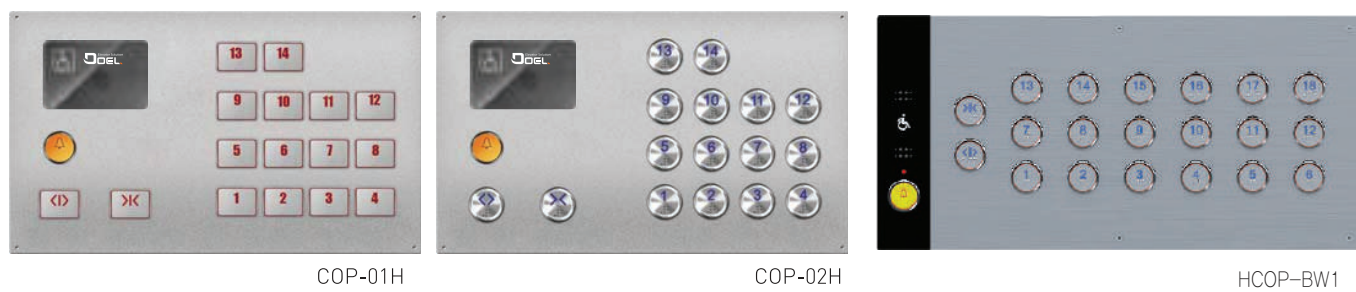
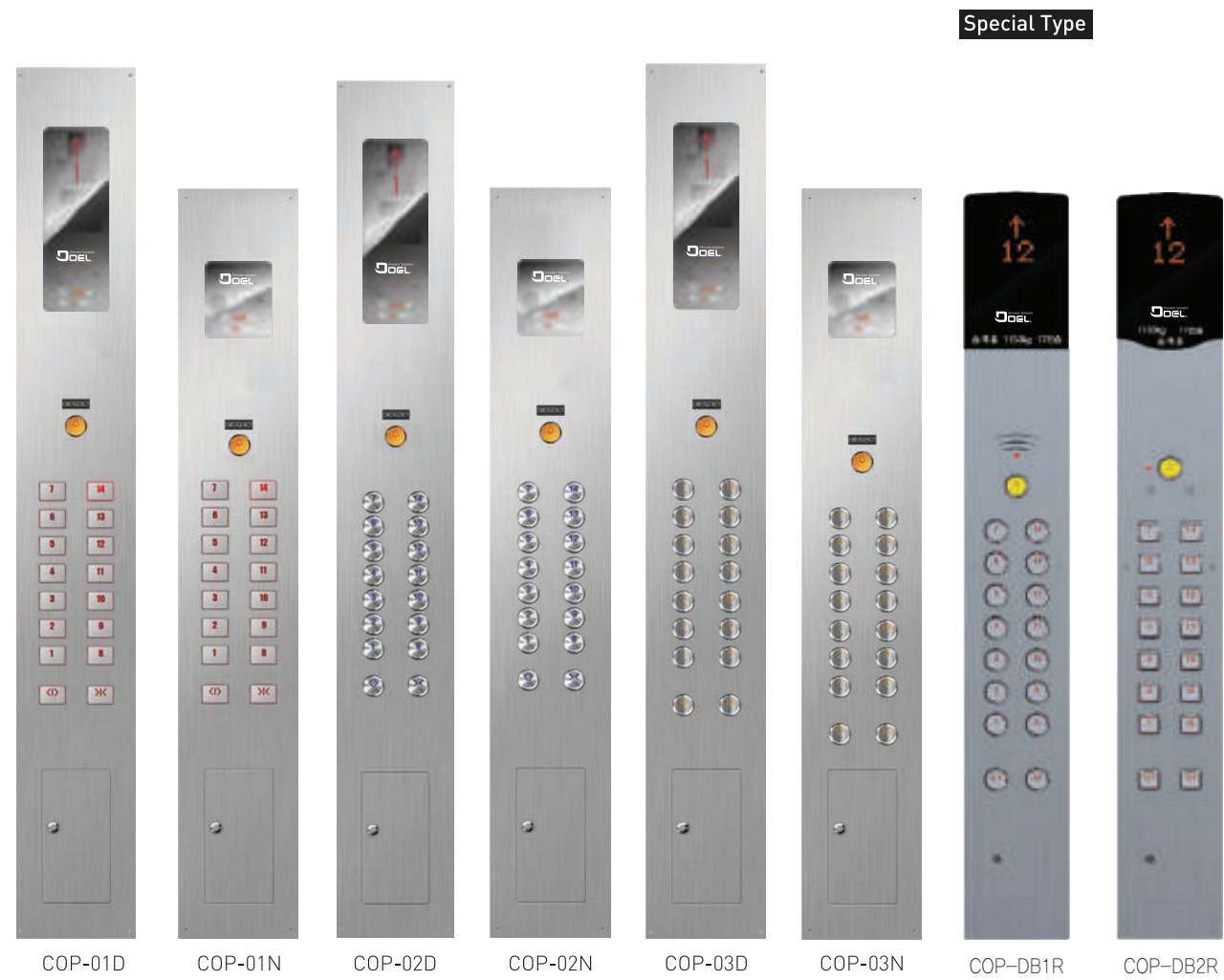
MB-02



MB-03

|| SIGNAL FIXTURES

»» CAR OPERATING PANEL

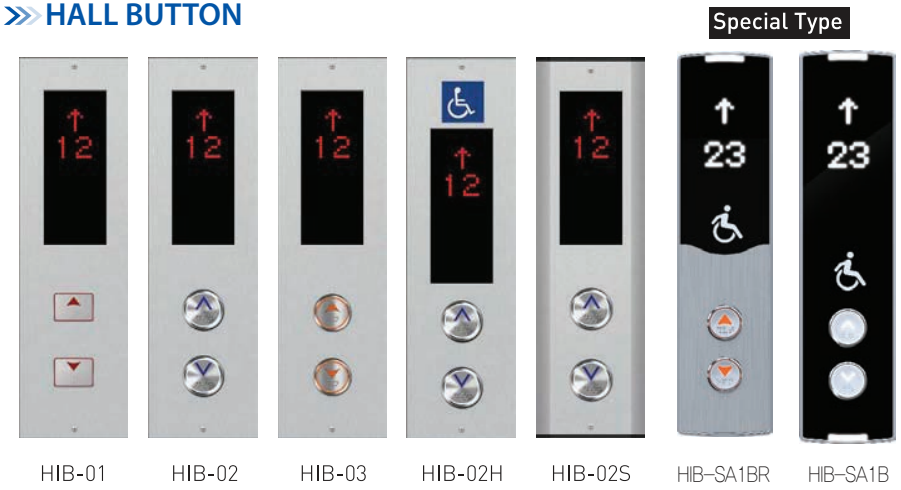


»» BUTTON

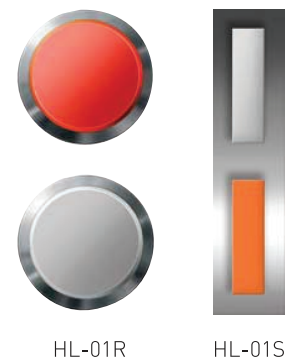


Note
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There may be a variance in car wall pattern depending on car size and capacity.

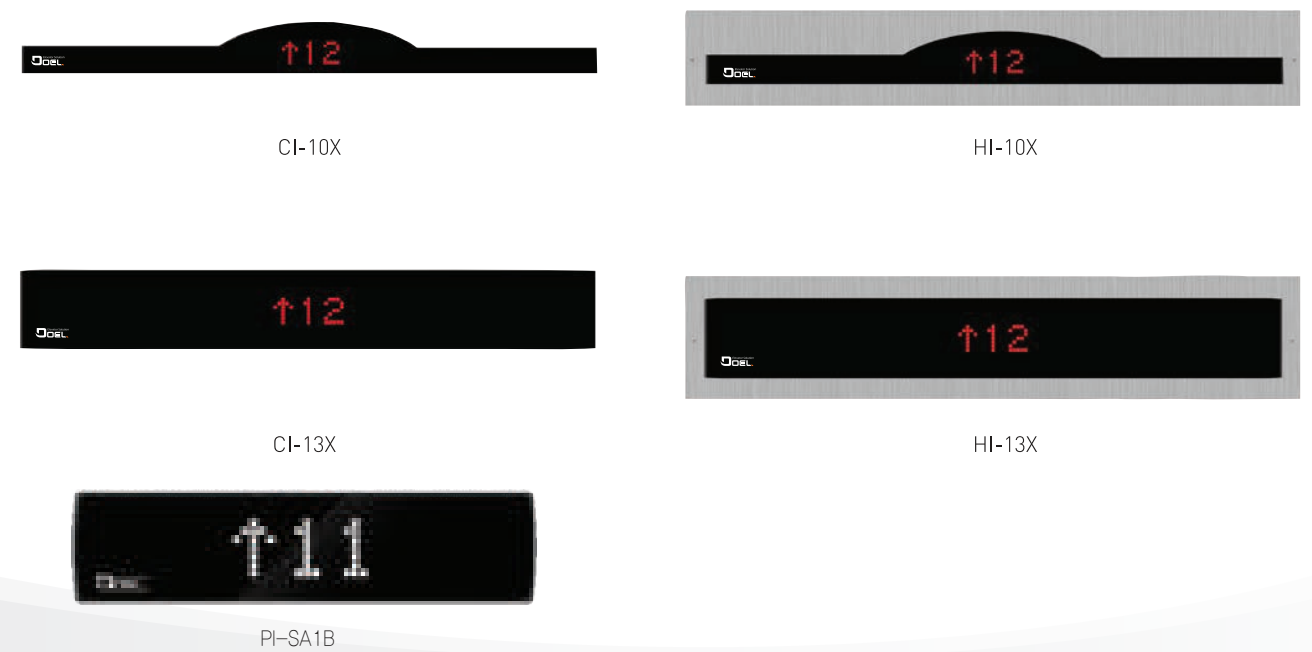
»» HALL BUTTON



»» HALL LANTERN

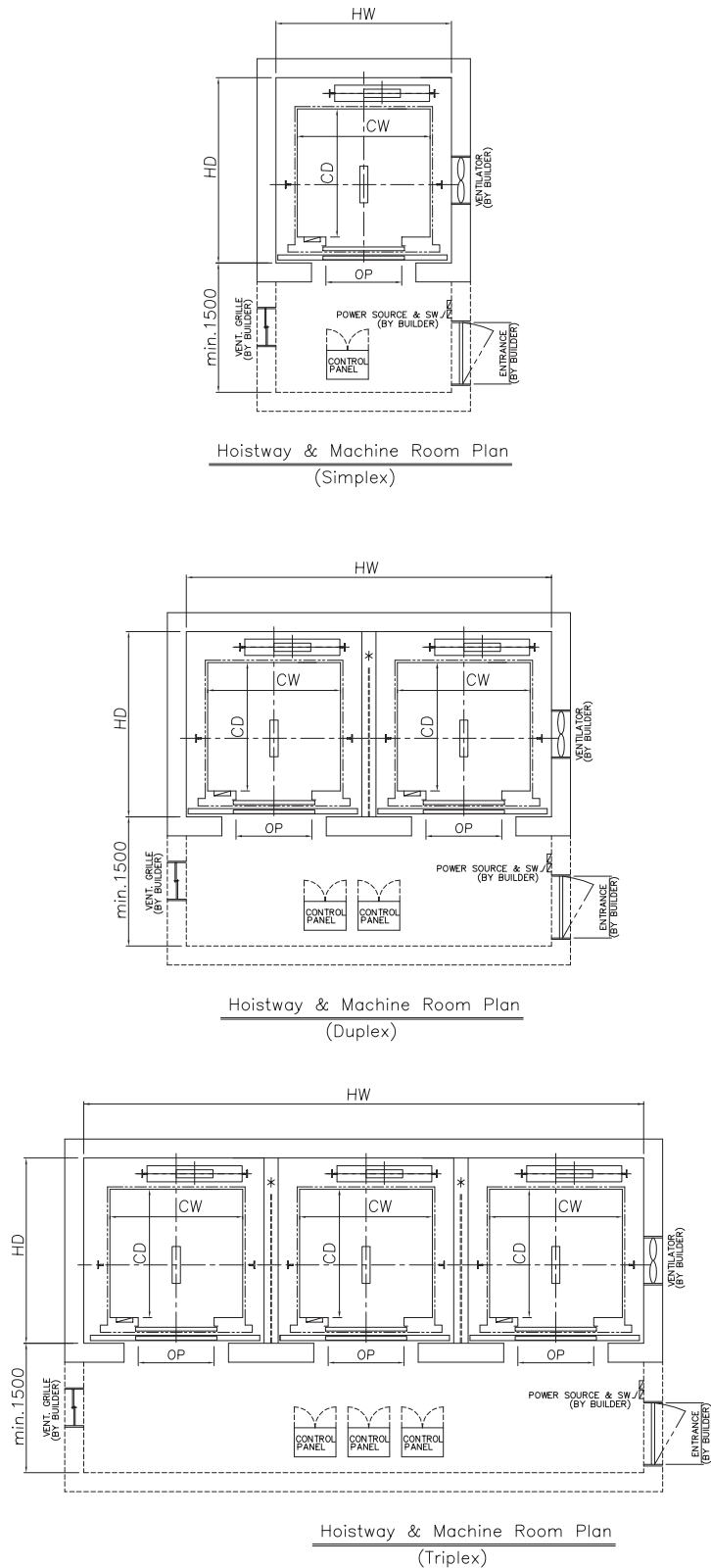


»» HALL / CAR POSITION INDICATOR



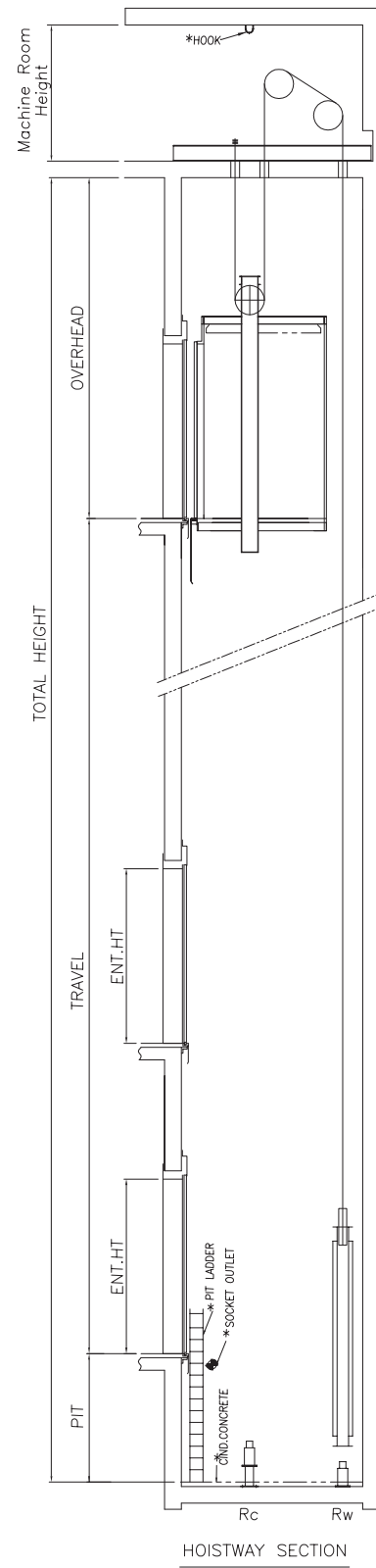
PLANNING GUIDE

MMR(Mini Machine Room) Gearless



NOTE

- 1) Marked as* shall be provided by Builder/Others
- 2) Separated Beams shall be provided by Builder/Others



Passenger Elevator (Speed 1.0~1.75m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		Motor Capacity [kW]	M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)				
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]				
1.0 1.5 1.75	6	450	800	1400	850	1800	1500	3750	1500	3600	2000	3.7 / 6.3 / 7.3	2400	4300 / 4400 / 4500	1400 / 1600
	8	550	800	1400	1050	1800	1700	3750	1700	4000	2500	3.7 / 6.3 / 7.3	2400	4300 / 4400 / 4500	1400 / 1600
	9	600	800	1400	1100	1800	1750	3750	1750	4100	2600	3.7 / 6.3 / 7.3	2400	4300 / 4400 / 4500	1400 / 1600
	9	630	800	1400	1150	1800	1800	3750	1800	4150	2650	3.7 / 6.3 / 7.3	2400	4300 / 4400 / 4500	1400 / 1600
	10	700	800	1400	1250	1800	1900	3750	1900	4200	2800	5.0 / 8.0 / 9.0	2400	4300 / 4400 / 4500	1400 / 1600
	11	800	800	1400	1350	1800	2000	3750	2000	4600	2900	5.0 / 8.0 / 9.0	2400	4400 / 4500 / 4600	1400 / 1600
	13	900	900	1600	1350	2000	2000	4150	2000	5100	3800	6.3 / 10.0 / 11.7	2400	4400 / 4500 / 4600	1400 / 1600
	15	1000	900	1600	1500	2000	2150	4150	2150	5500	4300	6.3 / 10.0 / 11.7	2400	4400 / 4500 / 4600	1400 / 1600
	17	1150	1000	1800	1500	2400	2200	4950	2200	8000	5200	7.7 / 11.5 / 13.5	2400	4400 / 4500 / 4600	1400 / 1600
			1100	2000	1350	2500	2050	5150	2050	8000	5200		2400	4400 / 4500 / 4600	1400 / 1600
	20	1350	1000	1800	1700	2600	2400	5350	2400	8900	6000	9.0 / 13.5 / 15.8	2400	4400 / 4500 / 4600	1400 / 1600
			1100	2000	1600	2600	2250	5350	2250	8900	6000		2400	4400 / 4500 / 4600	1400 / 1600
	24	1600	1100	2000	1750	2600	2450	5350	2450	10200	7000	10.7 / 16.0 / 18.7	2400	4400 / 4500 / 4600	1400 / 1600
	30	2000	1200	2000	2000	2600	2700	5350	2700	10500	8000	13.4 / 20.0 / 23.4	2400	4400 / 4500 / 4600	1500 / 1700

Passenger Elevator (Speed 2.0~2.5m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		Motor Capacity [kW]	M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)				
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]				
2.0 2.5	13	900	900	1600	1350	2200	2200	4550	2200	11100	7600	13.4 / 16.7	2500	5000 / 5500	2100 / 2400
	15	1000	900	1600	1500	2200	2300	4550	2300	11700	7900	13.4 / 16.7	2500	5000 / 5500	2100 / 2400
	17	1150	1000	1800	1500	2400	2200	4950	2200	12300	8300	15.4 / 19.2	2500	5000 / 5500	2100 / 2400
			1100	2000	1350	2500	2050	5150	2050	12300	8300		2500	5000 / 5500	2100 / 2400
	20	1350	1000	1800	1700	2500	2500	5150	2500	13100	8900	18.0 / 22.5	2500	5000 / 5500	2100 / 2400
			1100	2000	1600	2600	2250	5350	2250	13100	8900		2500	5000 / 5500	2100 / 2400
	24	1600	1100	2000	1750	2600	2550	5350	2550	13900	9400	21.4 / 26.7	2500	5000 / 5500	2100 / 2400
	30	2000	1100	2000	2000	2600	2700	5350	2700	14000	9500	26.7 / 33.4	2500	5000 / 5500	2100 / 2400

Passenger Elevator (Speed 3.0~4.0m/s)

[unit : mm]

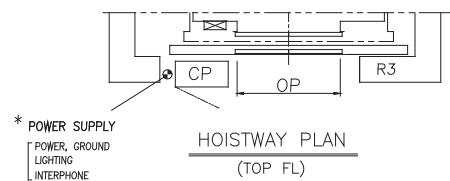
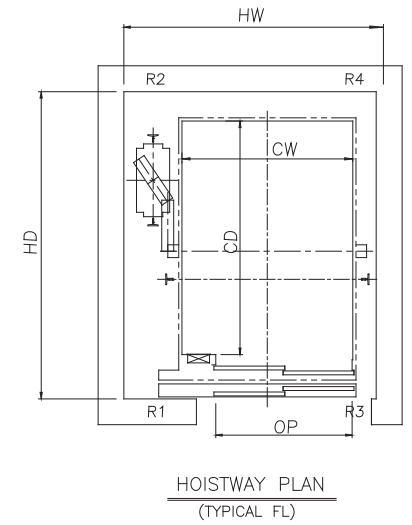
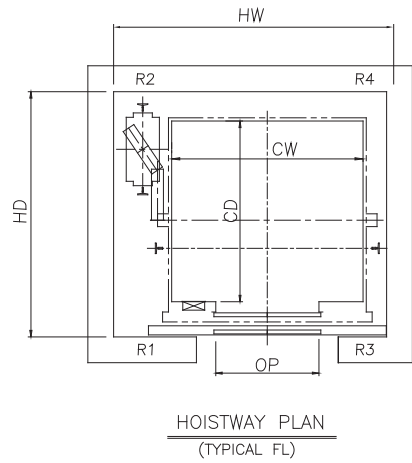
Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		Motor Capacity [kW]	M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)				
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]				
3.0 3.5 4.0	13	900	900	1600	1350	2300(*)	2200	4750	2200	11500	7800	20.8 / 24.2 / 27.7	3000	6000 / 6400 / 7100	2700 / 3200 / 3850
	15	1000	900	1600	1500	2300(*)	2300	4750	2300	12000	8100	20.8 / 24.2 / 27.7	3000	6000 / 6400 / 7100	2700 / 3200 / 3850
	17	1150	1000	1800	1500	2500(*)	2350	5150	2350	17450	11850	23.9 / 27.8 / 31.8	3000	6000 / 6400 / 7100	2700 / 3200 / 3850
	20	1350	1000	1800	1700	2500(*)	2600	5150	2600	17800	13200	28.0 / 32.7 / 37.4	3000	6000 / 6400 / 7100	2700 / 3200 / 3850
	24	1600	1100	2000	1750	2700(*)	2600	5550	2600	18100	13500	33.2 / 38.7 / 44.3	3000	6000 / 6400 / 7100	2700 / 3200 / 3850
	30	2000	1100	2000	2000	2700(*)	2900	5550	2900	18500	14000	41.5 / 48.4 / 55.3	3000	6000 / 6400 / 7100	2700 / 3200 / 3850

Note

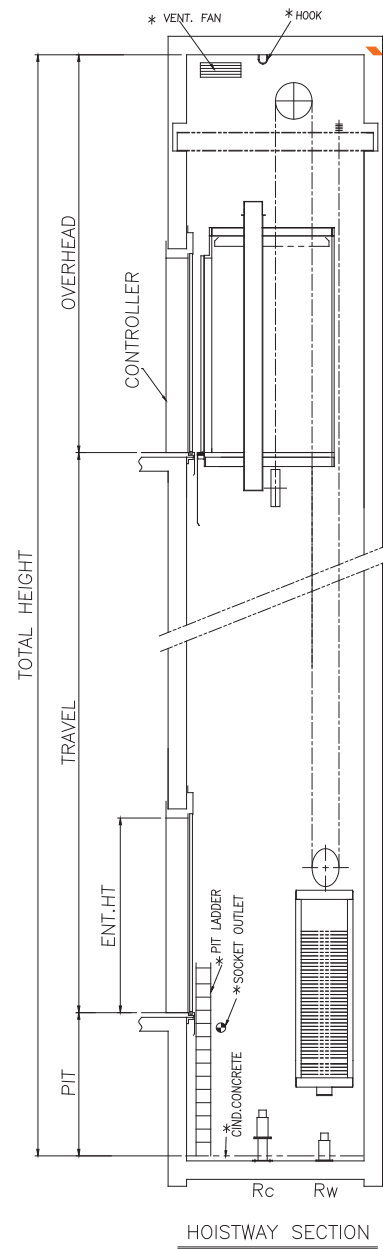
1. Above dimensions in table shall be under the following conditions
1) Door opening : 2panel Center opening (2P-CO), 2) No. of Door in Car : 1Car 1Door
2. OH, PIT dimensions shall be under the following condition
Entrance Height : 2100mm, Cab Height : Manufacturer's standard
3. Single hoistway (*) for 3.5m/s and 4.0m/s shall not be allowed.(should be Duplex Hoistway)

PLANNING GUIDE

»» MRL(Machine Room Less)



NOTE
1) Marked as* shall be provided by Builder/Others
2) Separated Beams shall be provided by Builder/Others

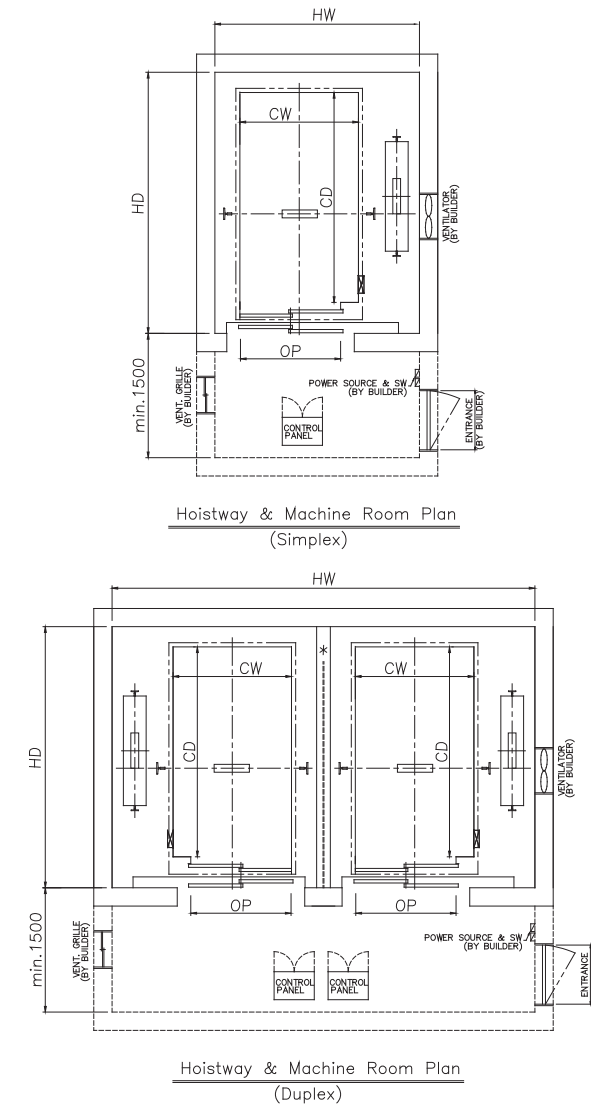


Machine Roomless Elevator(MRL)

Speed	Person	Load	OP	Opening	Car Insize		Hoistway		Reactions				Motor Capacity [kW]	Overhead (1.0/1.5/1.75/2.0 m/s)	PIT (1.0/1.5/1.75/2.0 m/s)
					CW	CD	HW	HD	R1(C.wt) Front[kg]	R2(C.wt) Rear[kg]	R3(Car) Front[kg]	R4(Car) Rear[kg]			
1.0 1.5 1.75 2.0	6	450	700	2P-CO	1100	1150	1800	1800	2200	4000	1500	400	4.2 / 6.3 / 7.3 / 8.4	3800/3900/3950/4100	1350/1450/1500/1700
	8	550	700	2P-CO	1100	1200	1800	1800	2200	4000	1500	400	4.2 / 6.3 / 7.3 / 8.4	3800/3900/3950/4100	1350/1450/1500/1700
	9	630	800	2P-CO	1100	1400	1850	1900	2200	4300	1600	600	4.2 / 6.3 / 7.3 / 8.4	3800/3900/3950/4100	1350/1450/1500/1700
	10	700	800	2P-CO	1300	1300	2000	1850	2200	4300	1600	600	5.3 / 8.0 / 9.3 / 10.7	3800/3900/3950/4100	1350/1450/1500/1700
	11	800	800	2P-CO	1300	1400	2000	1900	2200	4500	1600	600	5.3 / 8.0 / 9.3 / 10.7	3800/3900/3950/4100	1350/1450/1500/1700
	13	900	900	2P-CO	1500	1400	2200	1900	2600	5100	1900	700	6.5 / 9.8 / 11.4 / 13.1	3800/3900/3950/4100	1350/1450/1500/1700
	15	1000	900	2P-CO	1600	1450	2250	1950	2600	5200	1900	700	6.5 / 9.8 / 11.4 / 13.1	3800/3900/3950/4100	1350/1450/1500/1700
	17	1150	1000	2P-CO	1800	1450	2500	2000	2900	5900	2200	900	7.6 / 11.4 / 13.5 / 15.3	3800/3900/3950/4100	1350/1450/1500/1700
	20	1350	1000	2P-CO	1800	1700	2700	2600	3500	6800	2500	1100	9.5 / 14.2 / 16.5 / 17.6	4000/4100/4150/4300	1500/1600/1700/1900
	24	1600	1100	2P-CO	1800	1900	2700	2700	4700	7200	3000	1200	10.5 / 16.5 / 18.1 / 20.7	4000/4100/4150/4300	1500/1600/1700/1900
28	2000	1100	2P-CO	1800	2200	2700	2850	6200	7600	3500	1400	13.0 / 20.7 / 22.6 / 26.0	4000/4100/4150/4300	1500/1600/1700/1900	

Note
1. Above dimensions in table shall be under the following conditions.
1) Door opening : 2panel Center opening (2P-CO)
2) No. of Door in Car : 1Car 1Door

»» Hospital BED - Gearless



NOTE
1) Marked as* shall be provided by Builder/Others
2) Separated Beams shall be provided by Builder/Others

BED (Hospital) Elevator (Non Code Area)

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		Motor Capacity [kW]	M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)				
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]				
1.0	11	800	1100	1300	2300	2150	2900	4450	2900	7900	6100	5.0 / 8.0 / 9.0	2400	4400 / 4500 / 4600	1400 / 1600
1.5	15	1000	1100	1500	2300	2350	2900	4850	2900	11600	8500	6.3 / 10.0 / 11.7	2400	4400 / 4500 / 4600	1400 / 1600
1.75	17	1150	1200	1500	2500	2520	3000	5190	3000	11800	8700	7.7 / 11.5 / 13.5	2400	4400 / 4500 / 4600	1400 / 1600
2.0	11	800	1100	1300	2300	2150	2900	4450	2900	8400	6800	10.0 / 12.5	2500	5000 / 5500	2100 / 2400
	15	1000	1100	1500	2300	2350	2900	4850	2900	12100	9000	13.4 / 16.7	2500	5000 / 5500	2100 / 2400
	17	1150	1200	1500	2500	2520	3000	5190	3000	12300	9200	15.4 / 19.2	2500	5000 / 5500	2100 / 2400

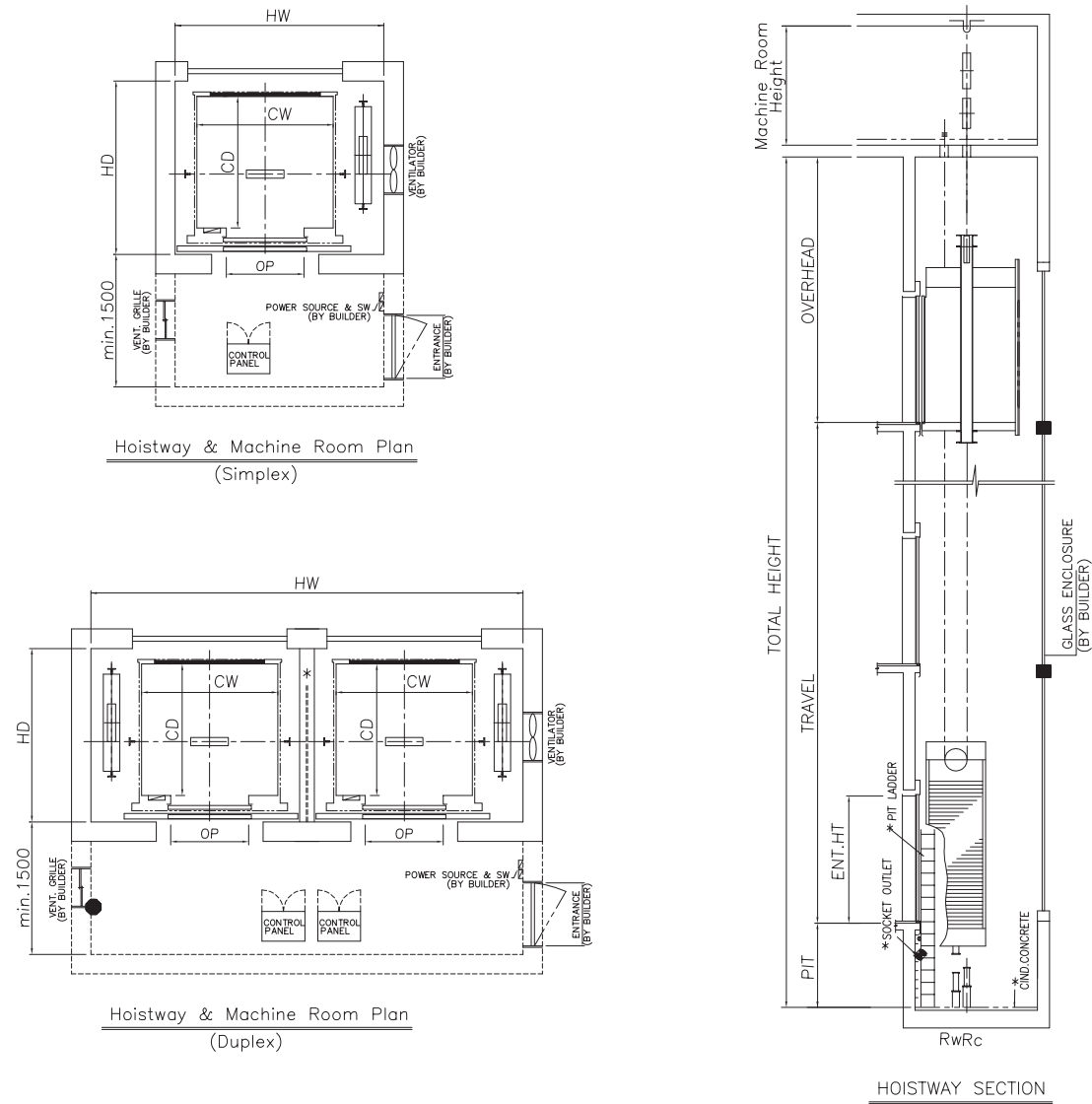
BED (Hospital) Elevator (Code Area:EN-81)

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		Motor Capacity [kW]	M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)				
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]				
1.0	20	1350	1100	1300	2300	2150	2900	4450	2900	9100	6200	9.0 / 13.5 / 15.8	2400	4400 / 4500 / 4600	1400 / 1600
1.5	24	1600	1200	1500	2300	2350	2900	4850	2900	11900	8800	10.7 / 16.0 / 18.7	2400	4400 / 4500 / 4600	1400 / 1600
1.75	28	2000	1200	1500	2500	2520	3000	5190	3000	12100	9000	13.4 / 20.0 / 23.4	2400	4400 / 4500 / 4600	1500 / 1700
2.0	20	1350	1100	1300	2300	2150	2900	4450	2900	9600	6700	18.0 / 22.5	2500	5000 / 5500	2100 / 2400
	24	1600	1200	1500	2300	2350	2900	4850	2900	12400	9300	21.4 / 26.7	2500	5000 / 5500	2100 / 2400
	28	2000	1200	1500	2500	2520	3000	5190	3000	12600	9500	26.7 / 33.4	2500	5000 / 5500	2100 / 2400

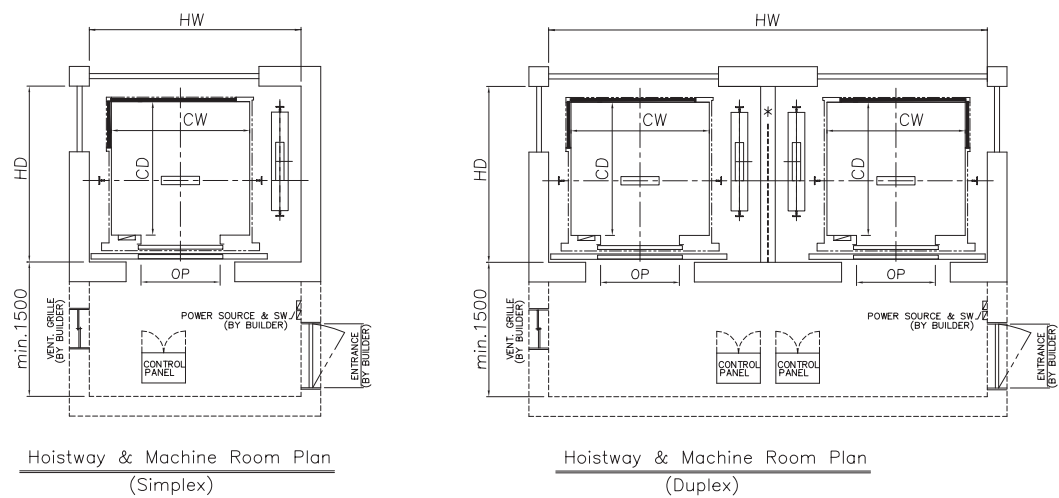
Note
1. Above dimensions in table shall be under the following conditions
1) Door opening : 2panel Side opening (2P-2S). 2) No. of Door in Car : 1Car 1Door
2. OH, PIT dimensions shall be under the following condition
Entrance Height : 2100mm, Cab Height : Manufacturer's standard

PLANNING GUIDE

»» Panoramic - 1 Side / 2 Side View



»» Panoramic - 1 Side / 2 Side View



1 SIDE VIEW (SPEED : 1.0~1.75m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
1.0 1.5 1.75	6	450	800	1400	850	2200	1450	4550	1450	4000	3100	2400	4500 / 4600 / 4700	2000 / 2300
	8	550	800	1400	1050	2200	1600	4550	1600	4300	3400	2400	4500 / 4600 / 4700	2000 / 2300
	9	600	800	1400	1100	2200	1700	4550	1700	4500	3500	2400	4500 / 4600 / 4700	2000 / 2300
	9	630	800	1400	1150	2200	1800	4550	1800	4600	3600	2400	4500 / 4600 / 4700	2000 / 2300
	10	700	800	1400	1250	2200	1850	4550	1850	4700	3700	2400	4500 / 4600 / 4700	2000 / 2300
	11	800	800	1400	1350	2200	1950	4550	1950	5000	4000	2400	4500 / 4600 / 4700	2000 / 2300
	13	900	900	1600	1350	2400	1950	4950	1950	6300	4400	2400	4500 / 4600 / 4700	2000 / 2300
	15	1000	900	1600	1500	2400	2100	4950	2100	6700	4700	2400	4500 / 4600 / 4700	2000 / 2300
	17	1150	1000	1800	1500	2800	2100	5750	2100	10100	6000	2400	4500 / 4600 / 4700	2000 / 2300
	20	1350	1000	1800	1700	2800	2300	5750	2300	10700	6500	2400	4500 / 4600 / 4700	2000 / 2300
	24	1600	1100	2000	1750	3000	2350	6150	2350	12100	6700	2400	4500 / 4600 / 4700	2000 / 2300
	30	2000	1200	2000	2000	3000	2600	6150	2600	12900	7100	2400	4500 / 4600 / 4700	2000 / 2300

1 SIDE VIEW (SPEED : 2.0~2.5m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
2.0 2.5	13	900	900	1600	1350	2400	2000	4950	2000	6300	4400	2500	5000 / 5500	2100 / 2400
	15	1000	900	1600	1500	2400	2150	4950	2150	6700	4700	2500	5000 / 5500	2100 / 2400
	17	1150	1000	1800	1500	2800	2150	5750	2150	10100	6000	2500	5000 / 5500	2100 / 2400
	20	1350	1000	1800	1700	2800	2350	5750	2350	10700	6500	2500	5000 / 5500	2100 / 2400
	24	1600	1100	2000	1750	3000	2400	6150	2400	12100	6700	2500	5000 / 5500	2100 / 2400
	30	2000	1100	2000	2000	3000	2650	6150	2650	12900	7100	2500	5000 / 5500	2100 / 2400

2 SIDE VIEW (SPEED : 1.0~1.75m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
1.0 1.5 1.75	8	550	800	1400	1050	2250	1650	4650	1650	4700	3800	2400	4500 / 4600 / 4700	2000 / 2300
	9	600	800	1400	1100	2250	1700	4650	1700	4900	3900	2400	4500 / 4600 / 4700	2000 / 2300
	9	630	800	1400	1150	2250	1800	4650	1800	5000	4000	2400	4500 / 4600 / 4700	2000 / 2300
	10	700	800	1400	1250	2250	1850	4650	1850	5100	4100	2400	4500 / 4600 / 4700	2000 / 2300
	11	800	800	1400	1350	2250	1950	4650	1950	5400	4400	2400	4500 / 4600 / 4700	2000 / 2300
	13	900	900	1600	1350	2500	1950	5150	1950	6700	4800	2400	4500 / 4600 / 4700	2000 / 2300
	15	1000	900	1600	1500	2500	2100	5150	2100	7100	5100	2400	4500 / 4600 / 4700	2000 / 2300
	17	1150	1000	1800	1500	2850	2100	5850	2100	10400	6400	2400	4500 / 4600 / 4700	2000 / 2300
	20	1350	1000	1800	1700	2850	2300	5850	2300	11100	6900	2400	4500 / 4600 / 4700	2000 / 2300
	24	1600	1100	2000	1750	3050	2350	6250	2350	12500	7100	2400	4500 / 4600 / 4700	2000 / 2300
	30	2000	1200	2000	2000	3050	2600	6250	2600	13300	7500	2400	4500 / 4600 / 4700	2000 / 2300

2 SIDE VIEW (SPEED : 2.0~2.5m/s)

[unit : mm]

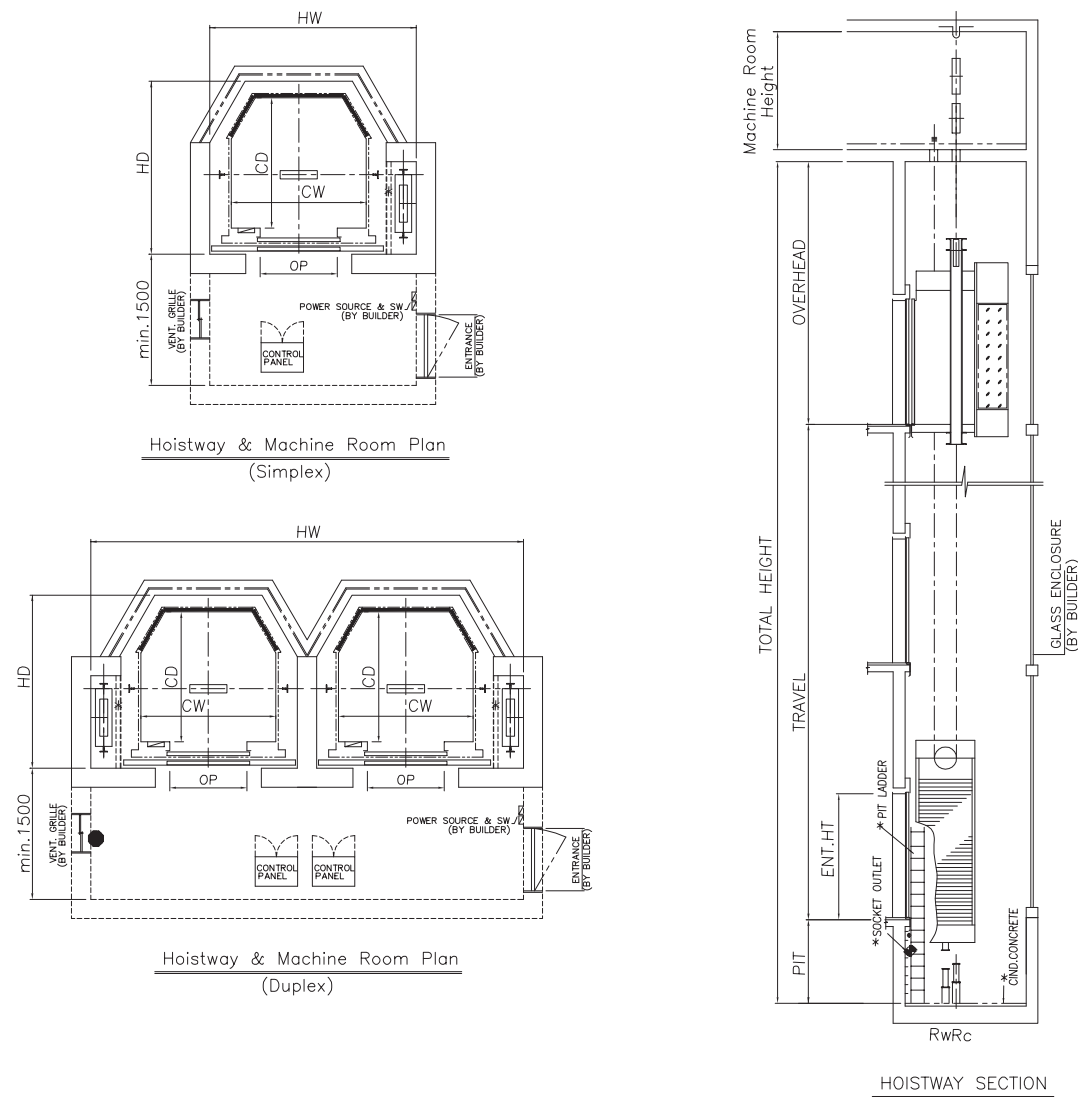
Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
2.0 2.5	13	900	900	1600	1350	2500	1950	5150	1950	6700	4800	2500	5000 / 5500	2100 / 2400
	15	1000	900	1600	1500	2500	2100	5150	2100	7100	5100	2500	5000 / 5500	2100 / 2400
	17	1150	1000	1800	1500	2850	2100	5850	2100	10400	6400	2500	5000 / 5500	2100 / 2400
	20	1350	1000	1800	1700	2850	2300	5850	2300	11100	6900	2500	5000 / 5500	2100 / 2400
	24	1600	1100	2000	1750	3050	2350	6250	2350	12500	7100	2500	5000 / 5500	2100 / 2400
	30	2000	1100	2000	2000	3050	2600	6250	2600	13300	7500	2500	5000 / 5500	2100 / 2400

Note

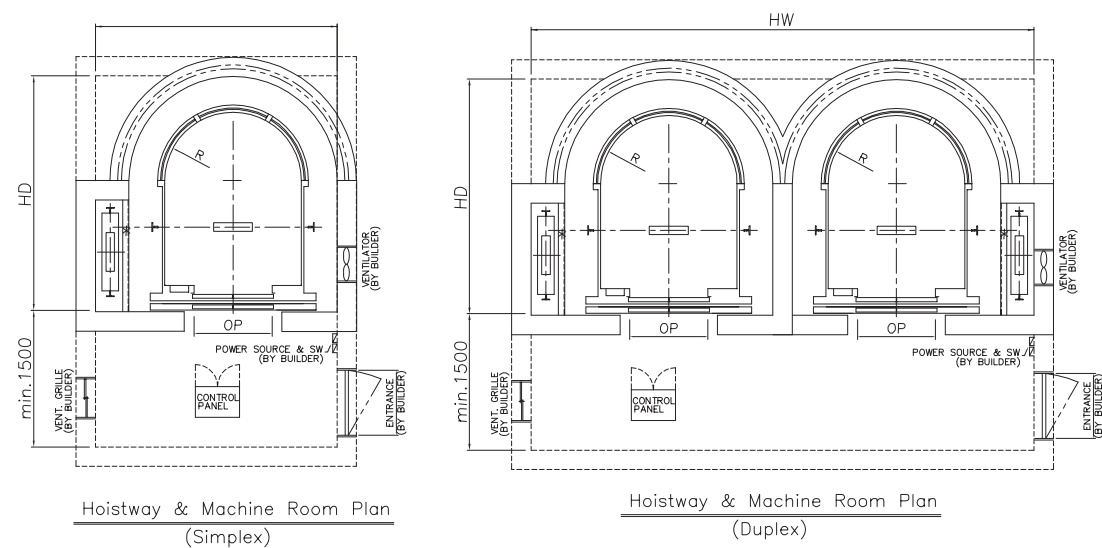
- Above dimensions in table shall be under the following conditions
1) Door opening : 2panel Center opening (2P-CO). 2) No. of Door in Car : 1Car 1Door
- OH, PIT dimensions shall be under the following condition
Entrance Height : 2100mm, Cab Height : Manufacturer's standard

PLANNING GUIDE

»» Panoramic - 3 Side View



»» Panoramic - Round View



3 SIDE VIEW (SPEED : 1.0~1.75m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
1.0 1.5 1.75	10	700	800	1400	1250	2350	1900	4850	1900	5800	3900	2400	4500 / 4600 / 4700	2000 / 2300
	11	800	800	1400	1350	2350	2000	4850	2000	6700	4500	2400	4500 / 4600 / 4700	2000 / 2300
	13	900	900	1600	1350	2500	2000	5150	2000	7300	4700	2400	4500 / 4600 / 4700	2000 / 2300
	15	1000	900	1600	1500	2500	2150	5150	2150	7600	5000	2400	4500 / 4600 / 4700	2000 / 2300
	17	1150	1000	1800	1500	2850	2150	5850	2150	10200	6400	2400	4500 / 4600 / 4700	2000 / 2300
	20	1350	1000	1800	1700	2850	2350	5850	2350	11100	6700	2400	4500 / 4600 / 4700	2000 / 2300
	24	1600	1100	2000	1750	3150	2400	6450	2400	12200	7100	2400	4500 / 4600 / 4700	2000 / 2300
	30	2000	1200	2000	2000	3150	2650	6450	2650	13000	7500	2400	4500 / 4600 / 4700	2000 / 2300

3 SIDE VIEW (SPEED : 2.0~2.5m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
2.0 2.5	13	900	900	1600	1350	2500	2000	5150	2000	7300	4700	2500	5000 / 5500	2100 / 2400
	15	1000	900	1600	1500	2500	2150	5150	2150	7600	5000	2500	5000 / 5500	2100 / 2400
	17	1150	1000	1800	1500	2850	2150	5850	2150	10200	6400	2500	5000 / 5500	2100 / 2400
	20	1350	1000	1800	1700	2850	2350	5850	2350	11100	6700	2500	5000 / 5500	2100 / 2400
	24	1600	1100	2000	1750	3150	2400	6450	2400	12200	7100	2500	5000 / 5500	2100 / 2400
	30	2000	1100	2000	2000	3150	2650	6450	2650	13000	7500	2500	5000 / 5500	2100 / 2400

Round VIEW (SPEED : 1.0~1.75m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
1.0 1.5 1.75	11	800	800	1300	1600	2250	2200	4650	2200	6100	4400	2400	4500 / 4600 / 4700	2000 / 2300
	13	900	900	1300	1800	2250	2400	4650	2400	7100	5200	2400	4500 / 4600 / 4700	2000 / 2300
	15	1000	900	1400	1860	2400	2450	4950	2450	7600	5300	2400	4500 / 4600 / 4700	2000 / 2300
	17	1150	1000	1500	1960	2500	2550	5150	2550	10200	6800	2400	4500 / 4600 / 4700	2000 / 2300
	20	1350	1000	1600	2080	2650	2700	5450	2700	11250	6900	2400	4500 / 4600 / 4700	2000 / 2300
	24	1600	1100	1700	2240	2850	2850	5850	2850	12500	7000	2600	4500 / 4600 / 4700	2000 / 2300

Round VIEW (SPEED : 2.0~2.5m/s)

[unit : mm]

Speed	Persons	Load	OP	Car Insize		Hoistway				Reactions		M/C Room	Overhead	PIT
						Single(1unit)		Duplex(2units)		R1(Car)	R2(C.wt)			
[m/sec]		[kg]	[OP]	CW	CD	HW	HD	HW	HD	[kg]	[kg]			
2.0 2.5	13	900	900	1300	1800	2400	2400	4950	2400	7100	5200	2500	5000 / 5500	2100 / 2400
	15	1000	900	1400	1860	2500	2450	5150	2450	7600	5300	2500	5000 / 5500	2100 / 2400
	17	1150	1000	1500	1960	2650	2550	5450	2550	10200	6800	2500	5000 / 5500	2100 / 2400
	20	1350	1000	1600	2080	2750	2700	5650	2700	11250	6900	2500	5000 / 5500	2100 / 2400
	24	1600	1100	1700	2240	2950	2850	6050	2850	12500	7000	2500	5000 / 5500	2100 / 2400

Note

1. Above dimensions in table shall be under the following conditions

1) Door opening : 2panel Center opening (2P-CO), 2) No. of Door in Car : 1Car 1Door

2 OH, PIT dimensions shall be under the following condition

Entrance Height : 2100mm, Cab Height : Manufacturer's standard

Load [kg]	Speed [m/sec]	OP [OP*EH]	Opening Type	Car Insize		Hoistway		M/C Room Height	Overhead	PIT
				CW	CD	HW	HD			
2000	0.25	2200 * 2200	4P-CO	2200	5500	3600	6050	2800	5000	1700
	0.5									
2500	0.25	2200 * 2200	4P-CO	2200	5500	3600	6050	2800	5000	1700
	0.5									
3000	0.25	2400 * 2200	4P-CO	2700	5500	4100	6000	2800	5000	1700
	0.5									
5000	0.25	2400 * 2200	4P-CO	2800	5600	4200	6000	2800	5000	1700
	0.5									

PLANNING GUIDE

» Technical Features

● Standard ○ Option

Feature	Description	Remark
Full collective selective	In automatic running or attendant state, this function enables the elevator to respond both car calls and hall calls. Passengers at any service floor can call the elevator by pressing the up call button and down call button.	●
Anti-nuisance function	The system automatically judges the number of passengers in the car and compares it with the number of registered car calls. If there are excessive car calls, the system determines that it is nuisance and cancels all car calls. In this case, passengers need to register correct car calls again.	●
Car Call Cancellation	Passengers can press the button consecutively twice to cancel wrong calls.	●
Turn Off of Car Light and Fan	If there is no running command within the set time, the system automatically cuts off the power supply to the lamp and fan in the car.	●
Full-load direct running	When the car is full-loaded in automatic running state, the elevator does not respond to hall calls from the passing floors. These halls calls, however, can still be registered, and will be executed at next time of running (in the case of single elevator) or by another elevator (in the case of parallel/group control).	●
Overload protection	When the car load exceeds the rated elevator load, the elevator alarms and stops running.	●
Button stuck check	The system can automatically identify whether a hall call button is stuck and cancel the stuck call, preventing the condition that the elevator cannot close and run due to stuck hall calls.	●
Repeat door close	If the door lock is not applied after the elevator performs door close for a certain time, the elevator automatically opens the door and then closes the door again.	●
Automatic door open upon door lock abnormality	If the system detects that the door lock circuit is abnormal during door open/close, the elevator automatically opens and closes the door again, and reports a fault after the set door open/close times is reached.	●
Door open time setting	The system automatically determines different door open time for door open for call, command, protection, or delay according to the set door open holding time.	●
Arrival gong disabled at night	Within the set time period, the arrival gong is disabled.	●
Landing at another floor	If the door open time exceeds the door open protection time but the door open limit signal is still inactive, the elevator closes the door and then automatically runs to the next landing floor.	●
Forced door close	When the door fails to close within the set time due to the action of the light curtain or safety edge, the elevator enters the forced door close state, closes the door slowly, and gives a prompt tone.	●
Voice Announcement	The elevator automatically announces information such as the running direction and next arriving floor during running.	○
Parallel / Group control	The system supports parallel control of two elevators / group control of more than three elevators	○
Micro Leveling	After landing at a floor, the elevator may move upward or downward due to the load change and the car door is not aligned with the ground, which is inconvenient for in and out of passengers and goods. In this case, the system allows the elevator to run to the leveling position in the door open state at the leveling speed.	○
Light curtain signal judgment	If the door is blocked by stuff during door close, the light curtain acts and the elevator opens the door. This function is invalid in fire emergency state.	○
Power failure emergency evacuation	For the elevator configured with standby power supply, the system uses the standby power supply (ARD System) to implement low-speed self-rescue in the case of power failure.	○
Residential monitoring	The control system can be connected to the terminal in the monitoring room. By using the NEMS software, you can view the floor position, running direction, and fault state of the elevator.	○
Parking Operation	In order for park the elevator, if the parking key is on position the car stop at the specified floor after finish servicing of all of registered call. After the car stops at the specified floor, the car light and fan are off automatically and every buttons both on the car operating panel and hall button box are no more available.	○
Fire return Operation	In case of fire every cars should be returned to the specified floor in order to evacuate passengers safety.	○
Fireman Operation	In case of fire, a fireman can use the elevator which is stopped at the specified floor in order to support fireman for fire-fighting.	○

PLANNING GUIDE

» Works Others

Work by Others

The works below are not included in the elevator installation work and should be carried out by building contractors in accordance with our drawing, relevant international or codes and regulations.

Hoistway

- A property framed and enclosed hoistway, including any ventilation as required by the governing code or authority.
- A dry pit constructed to the elevator manufacture's specifications to reinforce or sustain any vertical forces on the guide rails impacted loads from the car and counterweight buffers.
- A metal still angle or concrete haunch across the full width of the hoistway at each elevator landing.
- Provision of steel bars to fix jamb around the entrance of each floor.
- All cutting, including cutouts to accommodate hall signal fixtures, patching, painting of wall, floors, or partitions, together with finish painting of entrance doors and frame, if required.
- Provision of entrance or ladder for pit access.
- Supply and installation of fascia plate
- the tolerance of emergency exits and electric wiring in build sections of hoistway where required.
- The tolerance of perpendicular line over the whole hoistway height must not exceed $\pm 30\text{mm}$.
- A waterproof outlet and light fixture in the elevator pit area with the light switch being located adjacent to the access door ladder.
- Suitable light fixture and convenience outlet in the pit with a light switch adjacent to the access door or ladder. The receptacles shall have protection for ground.

Machine Room

- Provision of wiring between controller and building management system.
- A construction hoisting beam or hook, if require, with the correct location and size as determined by elevator contractor for each hoistway.
- Noise insulation should be installed between machine room and adjacent residential area.
- A suitable machine room with legal access, ventilation and concrete floor . The temperature in the machine room should be maintained between 5°C and 40°C Relative humidity should not exceed 90%(monthly) and 95%(daily) non-condensing. Ventilation fan, air conditioner or heat dissipation should be provided by building contractors.
- The size of entrance shall be min. 1000mm(w) X 2000mm(H).
- Installation of lead-in wire and earth wire between building main power board and room incoming distribution board. However, machine room lighting source supply shall be install separately.
- Provision of suitable light fixture and convenience outlets in the machine room.

Miscellaneous

- Wiring and piping between each machine room and monitoring system.
- Machine room and hoistway shall be free of harmful gas.
- All electric power for lighting, tools, welding, etc during installation.
- All single phase receptacles installed in machine room, pit and machinery spaces shall ground fault circuit interrupter protection.
- Fire detector for emergency operation.
- A secured area for storage of elevator equipment and materials during installation.