# YZER I

www.hyundaielevator.com

C-YS1-E0409 / 2018.6 / 4th Edition

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# YZER I

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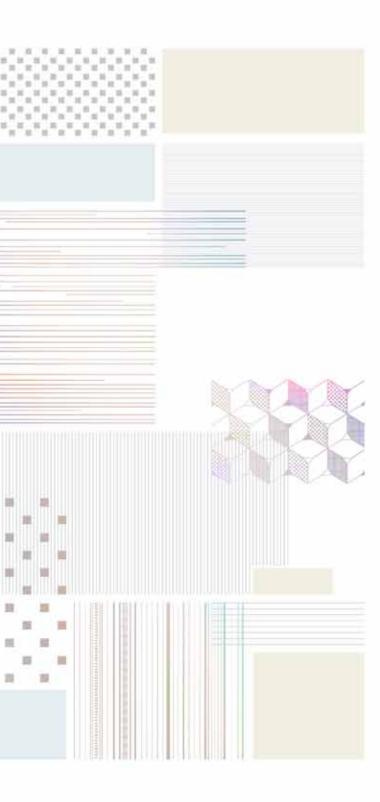
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HYUNDAI ELEVATOR YZER I

Hyundai Elevator sets a new benchmark, moving beyond yesterday's concept of value. Yesterday's value which defined an elevator as a machine connecting vertical space, is fading. Hyundai Elevator presents a new standard that makes people feel safe, comfortable, and happy in elevators.

An elevator for the people: The mission of YZER I

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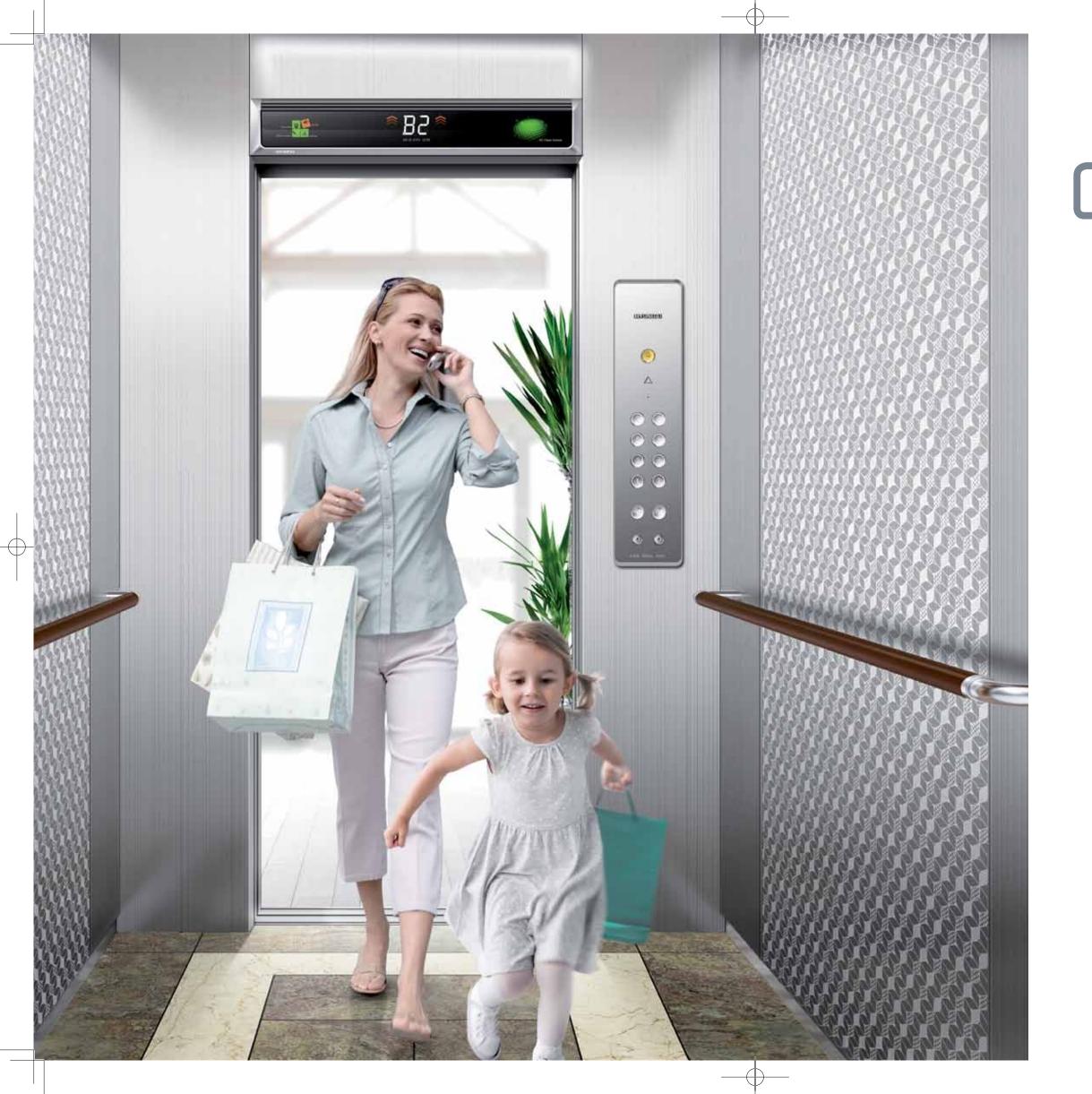
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## A new standard of living and true concern for people Bringing people and elevators closer

### Elevators that make people happy

embraced by Hyundai Elevator's YZER I.

Hyundai Elevator has raised these questions continuously should an elevator be perceived only as a means of transport? Are those convenience and attractive design should be prioritized? An elevator that serves as a companion to people and reflects their needs: this is the new philosophy and technology

### Ultra Slim LED Ceiling Applied to All Products

All products are outfitted with an ultra slim LED ceiling (<50 mm), which provides roominess in both height and width inside the elevator.

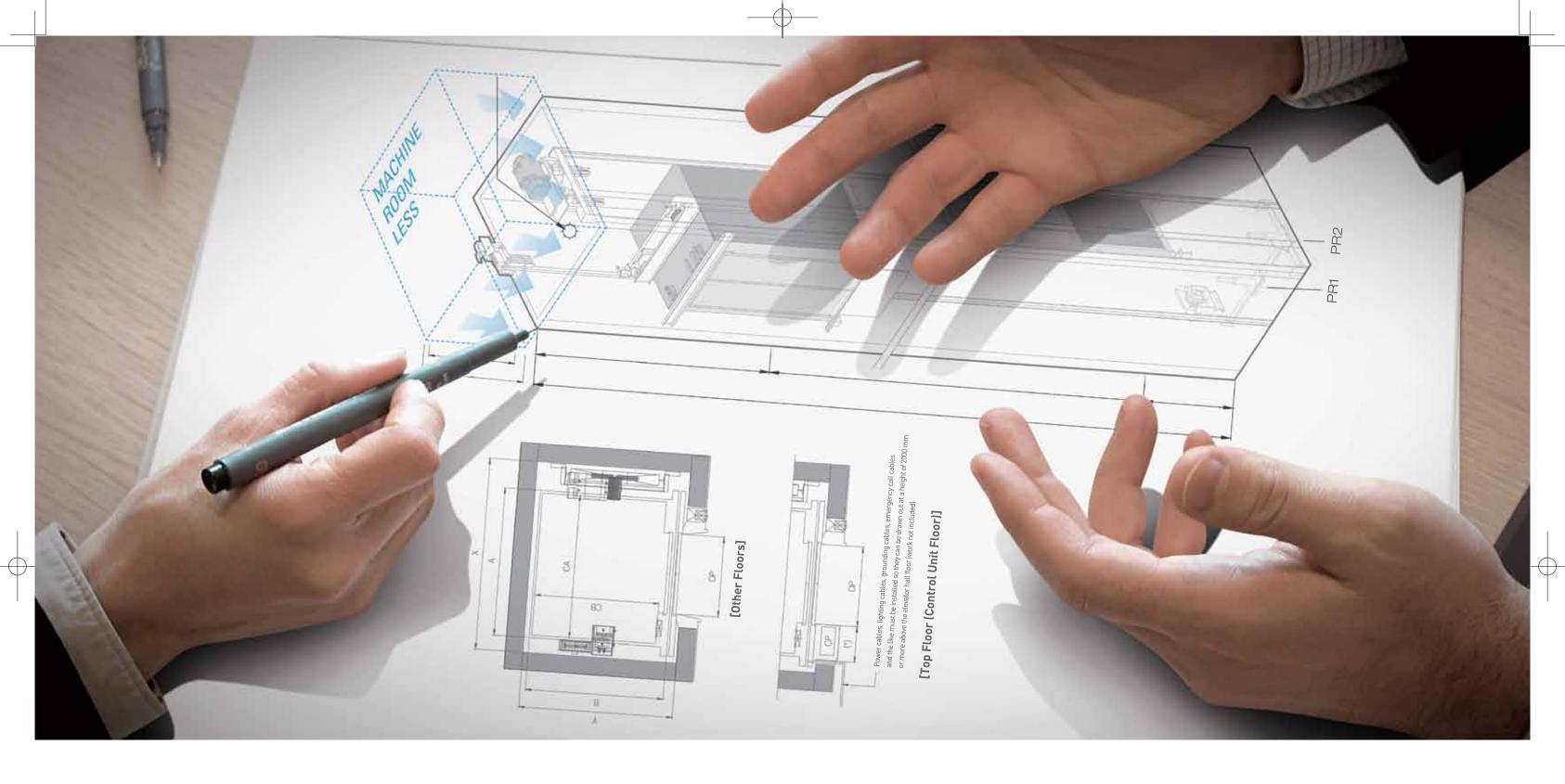


### Smart Indicator (Optional)

An industry first, the Smart Indicator delivers a pleasant environment in any conditions by means of an anion double-clean system and ultrasonic pest-repellant function. Its LCD display with an integrated CCTV assures safer elevator operation.



\* Optional items are sourced by S.KOREA



# More convenient, more comfortable **Elevator that understands people**

### An elevator that values people and space

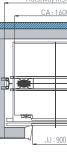
Efficient horizontal space that allows people to get on and off an elevator with ease, as well as a ceiling height that achieves a pleasing, soothing space: this is the philosophy of space embodied by Hyundai Elevator's YZER I.

#### High-performance, eco-friendly traction machine

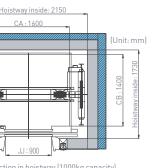
Built with technology developed at the company's R&D center in the Korean headquarters, the ultra-small YZER I traction machine delivers the world's highest standard of quality. As the essence of modern technology, it promises convenient maintenance by operating on an oil-free traction system that does not need regular oiling of its bearing unit.



Minimized hoistway size Minimized hoistway size and elimination of a machine room reduce construction costs and incidental expenses to the greatest extent thanks to a shortened construction schedule.



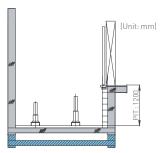
21% reduction in hoistway (1000kg capacity)



Compared with the Company's existing products

### Minimized pit length (1200 mm)

Efficient pit space with a minimized length of 1200 mm has become possible through topside arrangement of the suspension structure.



300 mr

### YZER I **KEY FEATURES**

#### LED CEILING



HANDRAIL



### **Ultra Slim LED Ceiling**

Eco-friendly LED ceiling provides higher, roomier space and reduces eye fatigue.

#### Ultra Slim LED Ceiling (<50 mm) Applied to All Products

- Higher ceiling offers a more spacious and pleasant interior space.
- Reduced power consumption lowers maintenance costs and brighter interior space eases eye fatigue.



### Anti-Virus Handrail (OPTIONAL)

Handrails are exposed to many germs through constant touching, but the use of antimicrobial materials protects users from harmful viruses.

#### Virus-Resistant Materials (OPTIONAL)

The safest, most convenient handrails employ the latest ergonomic design and motion analysis as well as antimicrobial materials.



Standard Handrail



#### CAR OPERATING PANEL / INDICATOR / HALL BUTTON



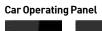
OPP-N364(Optional)

### YZER I Family Look

A two-tone, black and silver color combination completes the Hyundai Elevator family-look. The operating panel, indicator, and hall button all share an open-type design, allowing for easier maintenance.









0PP-N521/0PP-D521



5

PI-D800

Button

21Type



64Type

\* Optional items are sourced by S.KOREA

### YZER I OPTIONS

#### **SMART INDICATOR (OPTIONAL)**



### Smart care for health

Double-clean system maintains clean air in the elevator

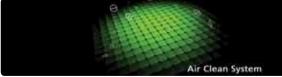
### Smart care for safety

Smart Indicator helps passengers to see safety functions with their own eyes.

### Double-Clean System Equipped with Air-Cleaning and Antiseptic Functions

An anion-generating Air Cleaner that works year-round and an indicator combines to produce an all-in-one design. Clean interior air quality is maintained through the complete elimination of undesirable active oxygen and germs. Visual recognization of system operation is easy since

Air-Clean, Anion, and Anti-Virus are displayed in sequence.



- Over 100,000 anions are released per 1 cc of air, keeping air clean and fresh at all times.

- More than 99% of harmful substances, including viruses, are removed (after four hours' operation).

- This system achieves eliminating malodorous substances.



**CCTV Security Info Display System** When CCTV is operated, the Smart Indicator

displays a CCTV graphic. This prevents crime by alerting people for potential crimes in a closed space.

\* CCTV Security Info Display System requires installation of CCTV (optional).

### **Ultrasonic Pest-Repellant Function**

Colorless and odorless ultrasonic waves eradicates, mosquitoes and other pests, to create a pleasant interior space, which up to now was hard to achieve due to frequent door-opening.



### IBS System (Card key)

It enables effective security and crime prevention by limiting entry/exit by outsiders.

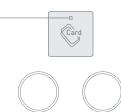
### Card Key

By placing the card key against the operating panel reader, users may select all floors or only one floor.

### **Operating Panel Card Reader**

Exclusive elevator control provides integrated security access control. The card key is readable from 5 to 8 centimeters away.







### BLACK BOX-TYPE CCTV/ MULTI-BEAM DOOR SAFETY DEVICE

### **Black Box-Type CCTV**

CCTV camera records all elevator activity including passengers, ensuring security control on a real-time basis.

### Multi-Beam Door Safety Device

Multibeam sensor detects passenger movement and automatically opens the door, helping prevent accidents.

L Design that blends user preferences with cutting-edge sensitivity An elevator with a sensitive touch

### Sensitive elevator that interacts with people

Hyundai Elevator places top priority on users' preferences because it considers an elevator more than a machine for moving people.

Harmonizing technology with artistry to achieve the perfect blend of beauty and comfort: this is the design philosophy behind Hyundai Elevator's YZER I.











Rearimage



100 Type

201 Type

5





### CAR DESIGN

Ceiling

Car Wall

### Handrail

Car Door Car Operating Panel Flooring

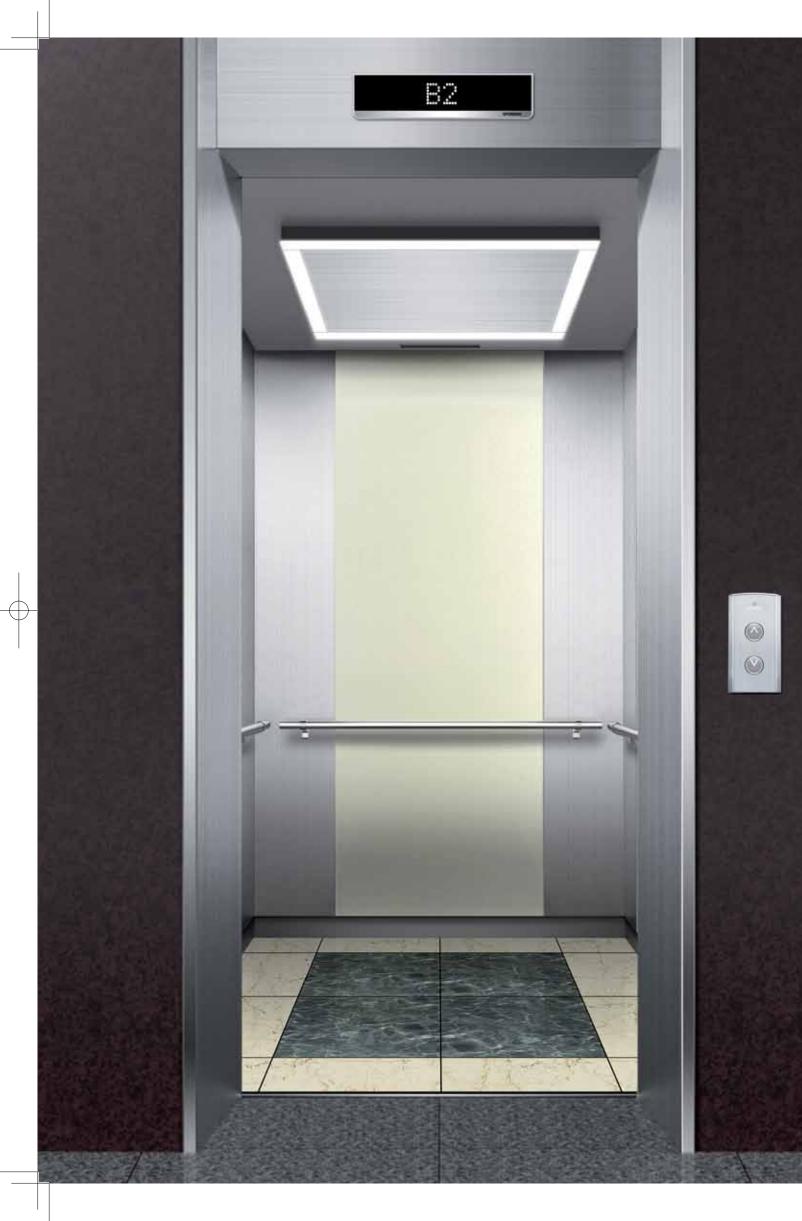
- → CD198A/Aluminum (Silver), LED Lighting, LED Down Light (4EA), Ceiling Plate (Painted Steel/P021)
   → Stainless Hairline
- → Stainless 1Pipe (1C) / Polished, Chrome Bracket
- $\rightarrow$  Stainless Hairline
- Car Operating Panel  $\rightarrow$  OPP-D564/Stainless Hairline
  - → PVC (FH-13)



ENTRANCE

201 Type	Jamb	ightarrow Stainless Hairline / 201Type
	Transom Panel	ightarrow Stainless Hairline
	Door	ightarrow Stainless Hairline
	Hall Button	$\rightarrow$ HPB-621
	Indicator	$\rightarrow$ PI-D700
100 Туре	Jamb	ightarrow Stainless Hairline / 100 Type
	Door	→ Stainless Hairline
	Hall Button	$\rightarrow$ HIP-D621
50 Type	Jamb	→ Stainless Hairline / 50 Type
	Door	→ Stainless Hairline
	Hall Button	→ HIP-D621

50 Type











### CAR DESIGN

Ceiling

Car Wall Handrail

Car Door Car Operating Panel Flooring

- → CD199B / Stainless Hairline, LED Bar Type Module (P022), Ceiling Plate (Painted Steel / P021)
   → Stainless Hairline, Painted Steel / P017
- → Stainless 1Pipe (1C) / Polished, Chrome Bracket
- $\rightarrow$  Painted Steel / P017
- Car Operating Panel  $\rightarrow$  OPP-D564/Stainless Hairline
  - → PVC (FH-08)



ENTRANCE

201 Туре	Jamb	ightarrow Stainless Hairline / 201Type
	Transom Panel	ightarrow Stainless Hairline
	Door	→ Painted Steel / P017
	Hall Button	$\rightarrow$ HPB-621
	Indicator	$\rightarrow$ PI-D700
100 Туре	Jamb	ightarrow Stainless Hairline / 100 Type
	Door	→ Painted steel / P017
	Hall Button	$\rightarrow$ HIP-D621
50 Type	Jamb	→ Stainless Hairline / 50 Type
	Door	→ Painted steel / P017
	Hall Button	→ HIP-D621

50 Type





YZER I - C Type

Frontimage

Rearimage



100 Type

201 Type

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### CAR DESIGN

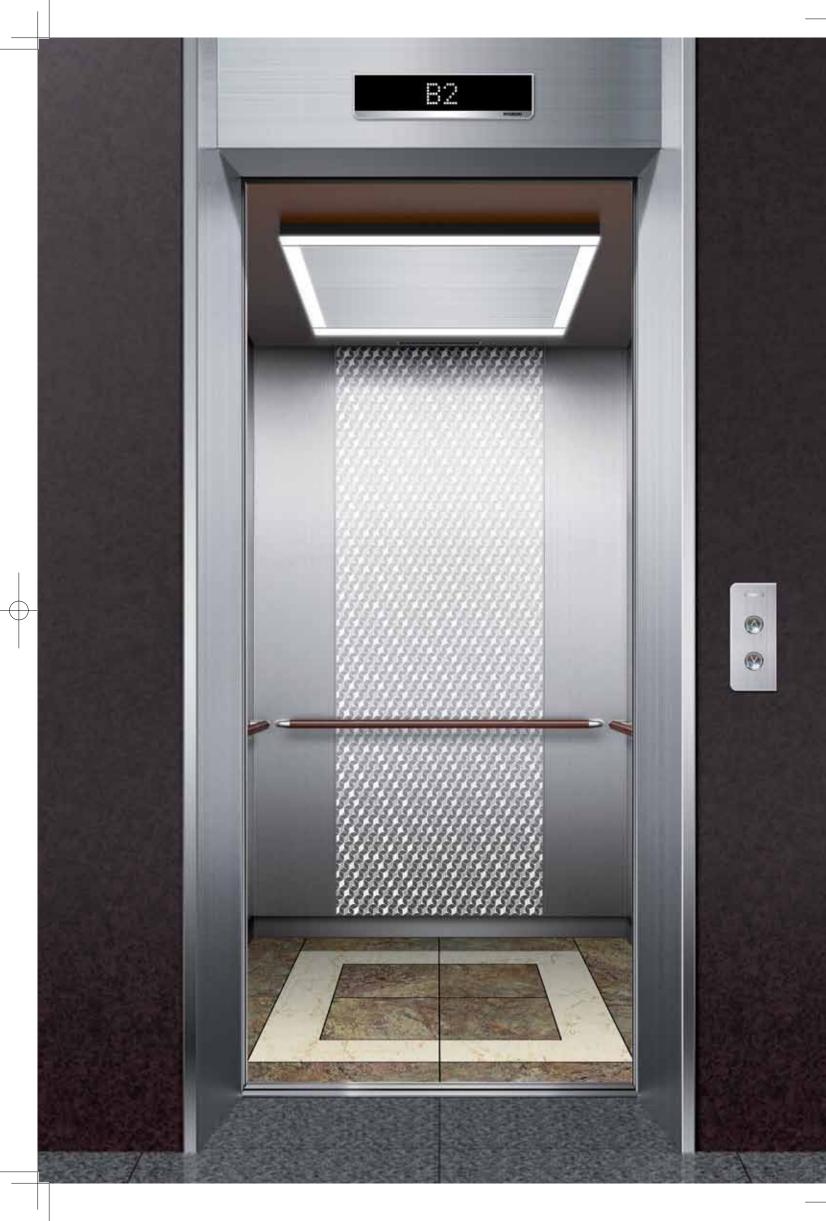
Ceiling	$\rightarrow$	CD191A / Stainless Hairline,
		LED Bar Type Lighting,
		Ceiling Plate (Painted Steel / P024)
Car Wall	$\rightarrow$	Stainless Hairline,
		Stainless Hairline Etching (SE2310)
Handrail	$\rightarrow$	Stainless 1Pipe (1C) / Polished,
		Chrome Bracket
Car Door	$\rightarrow$	STS Hairline Etching (SE2310)
Car Operating Panel	$\rightarrow$	OPP-D564/STS Hairline
Flooring	$\rightarrow$	PVC (FH-14)



### ENTRANCE

201 Type	Jamb Transom Panel Door Hall Button Indicator	<ul> <li>→ Stainless Hairline / 201Type</li> <li>→ Stainless Hairline</li> <li>→ Stainless Hairline Etching (SE2310)</li> <li>→ HPB-621</li> <li>→ PI-D700</li> </ul>
100 Туре	Jamb Door Hall Button	<ul> <li>→ Stainless Hairline / 100 Type</li> <li>→ Stainless Hairline Etching (SE2310)</li> <li>→ HIP-D621</li> </ul>
50 Туре	Jamb Door Hall Button	<ul> <li>→ Stainless Hairline / 50 Type</li> <li>→ Stainless Hairline Etching (SE2310)</li> <li>→ HIP-D621</li> </ul>

50 Type







Rearimage



100 Type

201 Type





### CAR DESIGN

Ceiling	$\rightarrow$	CD199B / Stainless Hairline,
		LED Bar Type Module (P022),
		Ceiling Plate (Painted Steel / P025)
Car Wall	$\rightarrow$	Stainless Hairline,
		Stainless Hairline Etching (SE2312)
Handrail	$\rightarrow$	1FW (Optional) / Virus-Resistant Single
		Bar (Wood Pattern), Aluminum Braket
Car Door	$\rightarrow$	Stainless Hairline Etching (SE2312)
<b>Car Operating Panel</b>	$\rightarrow$	OPP-N364 (Optional)
Flooring	$\rightarrow$	PVC (FH-15)
Indicator	$\rightarrow$	PI-L210 (Optional) / Smart Indicator,
		Anion Air Cleaner,
		Ultrasonic Pest Repellant

\* Optional items are sourced by S.KOREA.



### ENTRANCE

201 Туре	Jamb Transom Panel Door Hall Button Indicator	<ul> <li>→ Stainless Hairline / 201Type</li> <li>→ Stainless Hairline</li> <li>→ Stainless Hairline Etching (SE2312)</li> <li>→ HPB-A64</li> <li>→ PI-D700</li> </ul>
100 Туре	Jamb Door Hall Button	<ul> <li>→ Stainless Hairline / 100 Type</li> <li>→ Stainless Hairline Etching (SE2312)</li> <li>→ HIP-DA64</li> </ul>
50 Туре	Jamb Door Hall Button	<ul> <li>→ Stainless Hairline / 50 Type</li> <li>→ Stainless Hairline Etching (SE2312)</li> <li>→ HIP-DA64</li> </ul>

50 Type

## Minimal Space, Maximum Value!

In 1999, Hyundai Elevator introduced the YZER, Korea's first MRL (Machine Room Less) elevator. In 2015, the company rewrote MRL history with the introduction of the YZER **I**. By minimizing hoistway size, the YZER **I** reduces spatial needs while increasing customer value.



### Enhanced Safety through the Application of International Standards - Guaranteed safe operation by using ropes that meet international standards

### Simple Installation, Fast Delivery

Application of rail mounting-type traction system

 Easy to set up because beam sleeve installation at top of the hoistway is not necessary
 20% shorter installation period

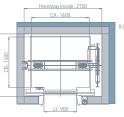
Not necessary to build footholds at the top and bottom of the hoistway Simplified process through the use of jigs for exclusive use



## Less burden on construction design and lower construction costs

- Minimum hoistway size

### - Minimum pit depth (1200 mm)



21% reduction in hoistway (1000kg capacity elevator) 300 mm reduction in depth

### Easier maintenance and improved customer safety

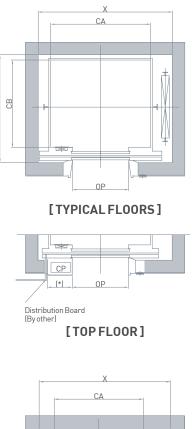
- A high-performance, eco-friendly traction machine with a proven track record
   Oil-free traction system not requiring regular oiling of the bearing unit
   Easier to maintain because on-site brake adjustment is not necessary
- Application of DNV, CE, TÜV and CSA-certified for system

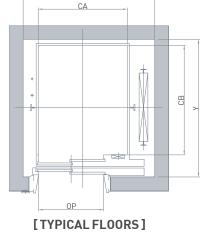


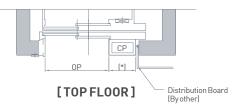
### **Hoistway Plan and Section**

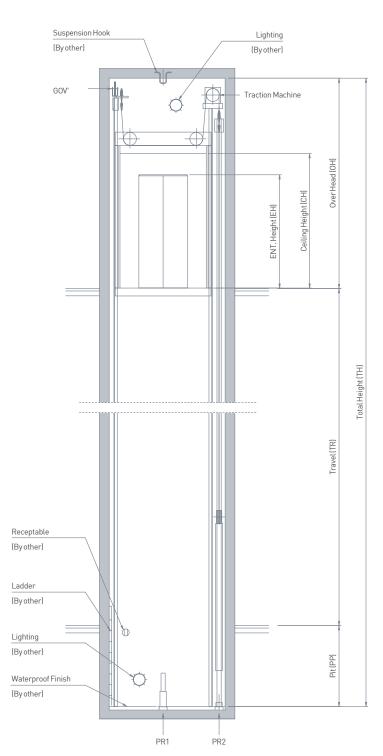
YZER I's hoistway, which exploits minimal space, is the product of extensive R&D by Hyundai Elevator's leading technical experts. Besides contributing to superior performance and riding comfort, it achieves a refined architectural design. The end result is the most efficient use of building space, lower construction costs, and easier maintenance.

### Layout of Hoistway









Notes:

1. The lighting of hoistway should be installed less than 500mm from above the ceiling of

hoistway and within 500mm above the bottom of the pit.(By others)

2. Machine room temperature should be maintained below 40°C with ventilating fan and/or air conditioner(if necessary) and humidity below 90%

### **Technical Data**

### **Standard Dimensions and Reactions**

		Speed	Capacity		Opening	Clear Opening	Car Size (mm)	Hoistway Size (mm)	Control Panel Box or Inspection Box (mm)	PIT Reac	tion (KN)
		(m/sec)	Persons	Kg	Туре	OP	CA × CB	X×Y	СР	PR1	PR2
			6	450		700	1100 × 1100	1700 x 1500		55	47
			7	550		800	1100 × 1300	1800 x 1650		60	49
							1100 × 1400	1800 x 1750			
			8	630		800	1400 × 1100	2000 x 1500		69	56
			9	700		800	1200 × 1400	1850 x 1750	505	73	59
	p		10	800		900	1350 × 1400	2050 x 1750		77	61
	Idai		12	900		900	1500 × 1400	2100 x 1750		84	68
	tar		13	1000		900	1600 × 1400	2200 x 1750		95	75
	S La		15	1150		1000	1800 × 1400	2400 x 1750		108	86
	ture	1.0						2550 x 2000	505 (1.0~1.5m/sec)		
	Manufacturer Standard	1.5	18	1350	2P-C0	1000	1800 × 1600	2550 x 2300	Inspection box: 500W x 330H CP: In Hoistway(1.75m/sec)	147	118
	Ma	1.75						2750 x 2100	505 (1.0m/sec)		
			21	1600		1100	2000 × 1700	2750 x 2400	Inspection box: 500W x 330H CP: In Hoistway(1.5~1.75m/sec)	157	128
									505 (1.0m/sec)		
			24	1800		1100	1600 × 2300	2500 × 2650	Inspection box: 130W x 420H CP: In Hoistway(1.5~1.75m/sec) 505 (1.0m/sec)	94x2 <sup>Note7</sup>	76x2 <sup>Note</sup>
			26	2000		1200	2100 x 1900	2850 x 2550	Inspection box: 130W x 420H CP: In Hoistway[1.5~1.75m/sec]	100x2 <sup>Note7</sup>	80x2 <sup>Note</sup>
			33	2500		1200	2200 x 2200	2950 x 2850	Inspection box: 130W x 420H CP: In Hoistway(1.0~1.75m/sec)	114x2 Note7	89x2 <sup>Note</sup>
			5	400		800	1000 x 1100	1550 x 1500		52	45
			1.5	450	-	800	1100 x 1100	1700 x 1550		55	47
			1.75	550	-	800	1100 x 1250	1700 x 1650	_	60	49
			8	630	-	900	1100 x 1400	1700 x 1800		69	56
			9	700	-	900	1200 x 1400	1800 x 1800	505	73	59
			10	800	-	900	1350 x 1400	1950 x 1800		77	61
			12	900	-	900	1300 x 1600	1900 x 2000	_	84	68
			13	1000		900	1100 x 2100	1700 x 2500	_	95	75
						1200	2100 x 1100	2700 x 1600			
		1.0 1.5	15	1150	-	1000	1200 x 2100	1800 x 2550		108	86
			18	1350	2P-S0	1100	1300 x 2300	2050 x 2750 2050 x 2860	505 (1.0~1.5m/sec) Inspection box: 500W x 330H	147	118
	rd	1.75							CP: In Hoistway(1.75m/sec)		
	Standar		21	1600		1200	1400 x 2400	2150 x 2850 2150 x 2910	505 (1.0m/sec) Inspection box: 500W x 330H CP: In Hoistway(1.5~1.75m/sec)	157	128
A	icturer		24	1800		1200	1500 x 2500	2300 x 2950	505 (1.0m/sec) Inspection box: 130W x 420H	94x2 <sup>Note7</sup>	76x2 <sup>Note</sup>
	Manufacturer Standard		26	2000		1300	1600 x 2500	2400 x 2950	CP: In Hoistway(1.5~1.75m/sec)           505 (1.0m/sec)           Inspection box: 130W x 420H	100x2 <sup>Note7</sup>	80x2 <sup>Note</sup>
			33	2500		1400	1800 x 2700	2600 x 3150	CP: In Hoistway(1.5~1.75m/sec) Inspection box: 130W x 420H CP: In Hoistway(1.0~1.75m/sec)	114x2 <sup>Note7</sup>	89x2 <sup>Note</sup>

Notes

1. The above table of dimensions as per EN81-20, Please contact us for other country codes and specific requirements.

2. The persons is calculated at 75kg per person, as required by EN81-20.

3. If need with two entrances at 180° on one shaft, please contact us.

 $4. \ \ {\rm In \ case \ to \ requested \ a \ safety \ gear \ on \ couterweight \ side, \ please \ contact \ us.}$ 

5. Min. Dimension of Wall Thickness+Finished at Top floor is 250mm.

6. The Hoistway dimensions width & depth are based on clear dimension ±20mm horizontal tolerances over the total hoistway height.

7. The car and counterweight of 1800kg~2500kg is Standard configuration with two buffers. Below 1800kg is one buffer.

[unit: mm]

#### **Overhead & Pit Depth**

incua a i ic bep				E unit. Initi
Duty Load (kg)	Speed (m/s)	Max. Travel (TR(m))	Overhead (OH)	Pit Depth (PP)
	1.0	50	CH+1500	1200
400 ~ 1150	1.5	70	CH+1600	1300
	1.75	80	CH+1700	1400
	1.0	50	CH+1500	1300
1350 ~ 1600	1.5	70	CH+1600	1400
	1.75	80	CH+1700	1500
	1.0	45	CH+1700	1400
1800 ~ 2500	1.5	90	CH+1830	1600
	1.75	90	CH+1910	1650

1. CH means the Ceiling Height which was included car internal ceiling.

2. The table dimensions are complied EN81-20.

- 3. To apply with the safety gear on counterweight side, OH, PIT should be increased. Please contact us.
- 4. If apply the trap door at car top, OH shall be increased 200~400mm.

### Works to Be Done by Others

#### **Building Work**

#### Hoistway

- $\textbf{1}. \ \text{Drilling holes in the walls near the elevator entrance on each floor}$ (for the entrance, hall button, hall lantern, etc.) and wall & floor-finish after elevator installation (including mortar grouting)
- 2. Installation of steel reinforcement to fix jambs on the left and right side entrance
- 3. Installation of ladder for pit inspection
- Finish work after waterproofing of the inside of pit and mounting of the b
   Supply and installation of hoistway enclosure or separating beam mater (when necessary)
- 6. Construction of concrete or beam-structured hoistway walls (at least 15 thick) where rail brackets can be fixed

#### **Electrical Work**

#### Hoistway

- 1. Electrical outlet wiring
- 2. Piping and wiring for electric wires from the monitoring system to the h if such a system is set up
- **3**. Piping and wiring for electric wires if a CCTV is installed
- 4. Miscellaneous (as indicated in drawings)
- ${\bf 5.}\,$  Power and lighting wiring for the power supply in the hoistway [For installed power capacity, please see drawings for power system construction to be done by other contractors.]
- 6. Installation of a power distribution box including N.F.B. in the electrical room for elevator use (It shall be installed near the hoistway. For installed power capacity, please see drawings for power system construction to be done by  $% \label{eq:capacity}$ other contractors.)

### Power Supply Plan

Load	Speed	Motor Capacity		apacity of ing (A)		Supply ty (kVA)		r Cable (mm²)		n Wire (mm²)	Starting Power
(kg)	(m/s)	) (kW)	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	(kVA/car)
400	1.0	2.7	20	40	7.2	15	4	10	6	10	12
450	1.0	3.0	20	40	7.5	15	4	10	6	10	12
550	1.0	3.7	32	75	8.2	17	4	10	6	10	14
	1.0	4.2	32	75	8.7	17	4	10	6	10	18
630	1.5	6.3	40	75	10.8	22	6	16	6	10	30
	1.75	7.4	40	75	13.0	26	6	16	6	10	30
	1.0	4.7	32	75	9.2	19	4	10	6	10	18
700	1.5	7.0	40	75	11.5	22	6	16	6	10	30
	1.75	8.3	40	75	13.9	28	6	16	6	10	30
	1.0	5.3	32	75	9.8	20	4	10	6	10	18
800	1.5	8.0	40	75	12.5	25	6	16	6	10	30
	1.75	9.4	40	75	14.9	30	6	16	6	10	30
	1.0	6.1	32	75	10.6	23	4	10	6	10	24
900	1.5	9.0	40	75	14.0	28	10	25	6	10	42
	1.75	10.6	50	100	16.1	35	10	25	6	10	42
	1.0	6.7	32	75	11.2	23	4	10	6	10	24
1000	1.5	10.0	50	100	15.0	30	10	25	6	10	42
	1.75	11.7	50	100	17.2	36	10	25	6	10	42
	1.0	7.7	40	75	12.2	25	4	10	6	10	28
1150	1.5	11.5	50	100	20.0	40	10	25	6	16	48
	1.75	12.3	50	100	20.0	40	10	25	6	16	48
	1.0	9.2	50	100	13.7	30	4	10	6	10	28
1350	1.5	13.8	50	100	22.3	45	10	25	6	16	48
	1.75	16.1	70	150	23.8	50	10	25	6	16	48
	1.0	10.8	50	100	15.3	34	4	10	6	10	28
1600	1.5	16.3	75	150	24.8	50	10	25	6	16	48
	1.75	19.0	75	150	26.7	55	10	25	6	16	48
	1.0	12.1	40	100	15	27	10	25	10	25	30
1800	1.5	18.1	75	150	22	39	16	35	16	35	44
	1.75	21.1	75	150	25	45	16	35	16	35	50
	1.0	13.4	40	100	16	30	10	25	10	25	32
2000	1.5	20.1	75	150	24	43	16	35	16	35	48
	1.75	23.4	75	150	27	50	25	35	16	35	54
	1.0	16.7	50	100	20	36	16	35	16	35	40
2500	1.5	25.1	75	150	29	53	25	35	16	35	58
	1.75	29.3	75	150	34	62	25	35	16	35	68

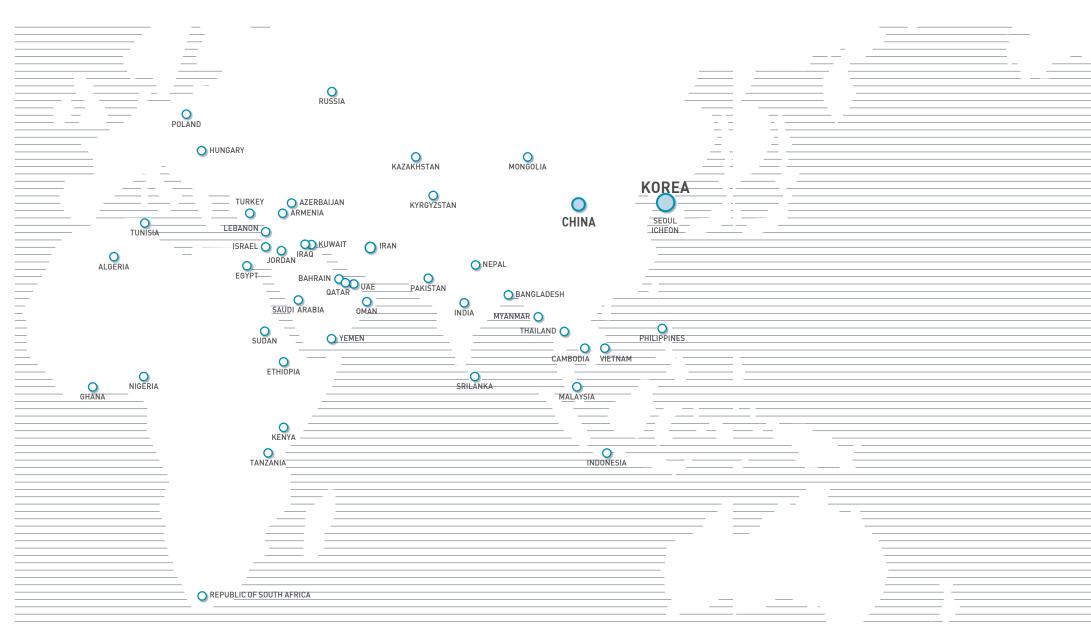
\* If requested 1.5 or 1.75m/s for 400~550kg, Please applied the data of 630kg to below above table

### The following construction and electrical works are not included in the elevator contract and shall be performed by others.

	7. Removal of wedge pins and molds from, and cleaning of, hoistway walls
work	<ol> <li>Provision of space (at no cost) where construction equipment and materials can be stored</li> </ol>
es of the	<ol> <li>Destruction of concrete structures which are inconsistent with design plans and necessary finish work</li> </ol>
buffer	<ol> <li>Installation of lighting fixtures in the hoistway (minimum 100 lux lights to be installed at top and bottom of the hoistway)</li> </ol>
erials	<ol> <li>Hoisting beam or hook installation to lift machines to the top of hoistway ceiling</li> </ol>
50 mm	12. Miscellaneous (as indicated in drawings)
	7. Deven eveters construction that maintains the line values of fusivotion of a
noistway	<ol> <li>Power system construction that maintains the line voltage fluctuation of a power-distribution source and a light within the range of +5% to -10% and with in ±2% respectively</li> </ol>

- 8. Piping and wiring for outlets used for pit inspection lighting
- 9. Power supply for construction and test operation during installation (at no cost)  ${\bf 10}. \ {\rm Piping} \ {\rm and} \ {\rm wiring} \ {\rm for} \ {\rm an} \ {\rm emergency} \ {\rm call} \ {\rm apparatus} \ {\rm between} \ {\rm the} \ {\rm elevator}$ control unit and the central control room/security office (electric wire specifications: per elevator unit; UTP 0.5 mm x 2P)

\* If a steel frame-structured hoistway is set up, please contact us for hoistway planning and other details.



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