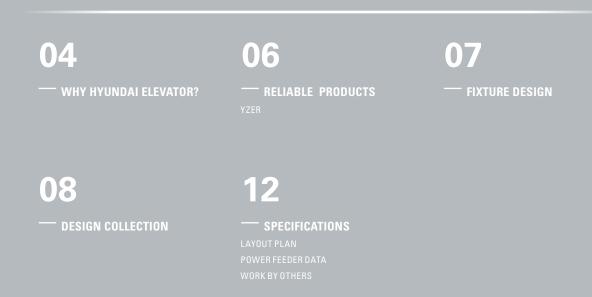


Hyundai Elevator and Advance Lift Technologies have partnered to offer a complete line of products, which can be purchased through Advance Lift Technologies for US and Canada.

#### **Contents**



# PASSENGER ELEVATORS

MOVING SOLUTIONS WITH SAFETY, RELIABILITY AND EFFICIENCY

# Why Hyundai Elevator?

Factors that contribute to Hyundai Elevator's credibility and reliability.





## Strengthening Technological Leadership with a Solid Platform Based on Trust

With smart factories in Korea and China, Hyundai Elevator aims to further improve its worldclass elevator technology with manufacturing and product quality innovations that correspond to the Fourth Industrial Revolution.

#### **CERTIFICATION**









ISO14001 ISO45001 CoC (Certification of Conformity)



#### Production system and sales network that span across borders

In addition to state-of-the-art production facilities in Korea, Hyundai Elevator built manufacturing facilities in China to supply its unparelleled products worldwide. The company strives to better meet the needs of global customers through localization and by maximizing synergy among its 5 overseas subsidiaries and 46 sales networks.

#### **OVERSEAS SUBSIDIARIES**

 CHINA
 SHANGHAI HYUNDAI ELEVATOR CO., LTD.

 INDONESIA
 PT. HYUNDAI ELEVATOR INDONESIA

 MALAYSIA
 HYUNDAI ELEVATOR (MALAYSIA) SDN. BHD

VIETNAM HYUNDAI THANH CONG ELEVATOR VIETNAM CO., LIMITED

TURKEY HYUNDAI ELEVATOR ASANSÖR VE SERVIS SANAYI VE TICARET ANONIM ŞIRKETI



# Machine-room-less elevators (YZER)

The machine roomless elevator YZER is a revolutionary new elevator that eliminates the need for a rooftop machine room through the use of miniaturized traction machines and control panels, allowing increased space utilization, resolution of height and sunlight restriction issues, and more freedom in installation layout and skyline design.



#### **Increased space efficiency**

A revolutionary new elevator that maximizes space efficiency through the use of smaller operating and control components that can be installed to the side of the door or in the hoistway, eliminating the need for a separate rooftop machine room.

#### Flexible hoistway layout and skyline design

Provides enhanced flexibility in hoistway layout, and more freedom in building roof line design with the elimination of the conventional penthouse type machine room.

#### **Reduced building cost**

Costs are reduced by eliminating the need for machine room construction and installation.

#### **Compact gearless traction machine**

By using a gearless traction machine with permanent magnet synchronous motor, the YZER provides a smoother ride, improved energy savings, and environmentally friendly features.









# **Fixture Design**

#### **Car Operating Panels**



#### **Indicator**



#### **Hall Buttons**



#### **Car Lantern**



#### **Hall Lantern**



Note: The lantern size and installation method depend on the location, whether it is in the car or the hall.

#### **Ceiling**



#### Handrail



#### **Cab Finishes**

STS Hairline 304

STAINLESS STEEL

SE2302

#### PAINTED STEEL











| REARVIEW |



| ENTRANCE |

Ceiling	CD199A / Aluminum(Silver), PC ABS, LED Light, Ceiling panel(Painted steel P021)
Wall	Painted Steel(P019)
Handrail	1C/Stainless 1Pipe, Chrome Bracket
Car Doors	Painted Steel(P019)
Car Operating panel	OPP-N2E1
Car Indicator	PI-L700
Car Lantern	CLSU-640T
Flooring	By Others
Kick plate	Stainless Hairline 304(including Ventilation Hole)

#### **ENTRANCE**

Hall Door	Painted Steel(P019)
Jamb	Stainless Hairline 304
Hall Lantern	HLSU-640T
Hall Indicator	PI-L700
Hall Button	HPB-2E1B







| REARVIEW |



| ENTRANCE |

Ceiling	CD511B / Aluminum(Dark Gray), NST Embo bead, PSU Pannel, LED Light, Ceiling panel(Painted steel P021)						
Wall	Stainless Hairline 304						
Handrail	FA/Stainless						
Car Doors	Stainless Hairline 304						
Car Operating panel	OPP-N2E1						
Car Indicator	PI-L700						
Car Lantern	CLSU-640T						
Flooring	By Others						
Kick plate	Stainless Hairline 304(including Ventilation Hole)						

#### **ENTRANCE**

Hall Door	Stainless Hairline 304
Jamb	Stainless Hairline 304
Hall Lantern	HLSU-640T
Hall Indicator	PI-L700
Hall Button	HPB-2E1B







| REARVIEW |



| ENTRANCE |

Ceiling	CD199A / Aluminum(Silver), PC ABS, LED Light, Ceiling panel(Painted steel P025)						
Wall	Stainless Hairline 304, Etching(SE2302)						
Handrail	1C/Stainless 1Pipe, Chrome Bracket						
Car Doors	Stainless Hairline 304, Etching(SE2302)						
Car Operating panel	OPP-N2E1						
Car Indicator	PI-L700						
Car Lantern	CLSU-640T						
Flooring	By Others						
Kick plate	Stainless Hairline 304(including Ventilation Hole)						

#### **ENTRANCE**

Hall Door	Stainless Hairline 304, Etching(SE2302)
Jamb	Stainless Hairline 304
Hall Lantern	HLSU-640T
Hall Indicator	PI-L700
Hall Button	HPB-2E1B







| REARVIEW |



| ENTRANCE |

Ceiling	CD511B / Aluminum(Dark Gray), NST Embo bead, PSU Pannel, LED Light, Ceiling panel(Painted steel P021)						
Wall	Stainless Mirror 304						
Handrail	1C/Stainless 1Pipe, Chrome Bracket						
Car Doors	Stainless Mirror 304						
Car Operating panel	OPP-N2E1						
Car Indicator	PI-L700						
Car Lantern	CLSU-640R						
Flooring	By Others						
Kick plate	Stainless Hairline 304(including Ventilation Hole)						

#### **ENTRANCE**

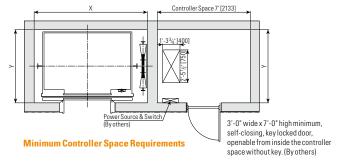
Hall Door	Stainless Mirror 304
Jamb	Stainless Hairline 304
Hall Lantern	HLSU-640R
Hall Indicator	PI-L700
Hall Button	HPB-2E1B

### Layout Plan - YZER(Machine-Room-Less Elevators) 150fpm~350fpm

### | Plan of Hoistway

# 

Controller: At Top Floor
Position: Front or Side, refer to B/D condition



Front Opening (F)

X
CA

Min.4
Clear Opening
(By others)

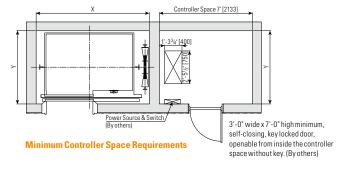
Front & Rear Opening (F/R)

X
CA

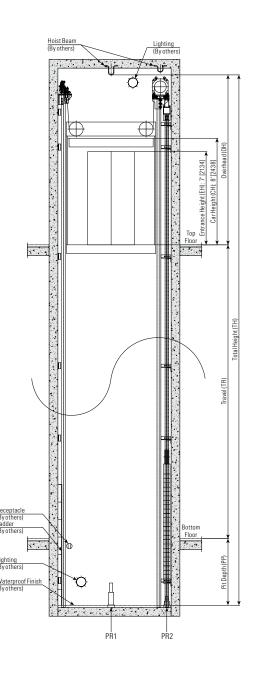
Min.4
Clear Opening
(By others)

Finished Wall Min.4
Clear Opening
(OP)

Controller : At Top Floor Position : Front or Side, refer to B/D condition



### | Section of Hoistway



Note: The lighting of hoistway should be installed less than 1'-7 11/16" [500] from above the ceiling of hoistway and within 1'-7 11/16" [500] above the bottom of the pit. (By others)

### Layout Plan - YZER(Machine-Room-Less Elevators) 150fpm~350fpm

### | Standard Dimensions

Unit:feet-inch(mm)

0 '	0 1	Maximum		Clear		Carl	nside	Hoistw	ay Inside
Capacity	Speed	Travel	Opening	Opening	Front	CA	СВ	Х	Υ
lbs (kg)	fpm (mpm)	feet (m)	Туре	feet (mm)	/Rear		eet nm)	feet (mm)	feet (mm)
2100	150 [45] 200 [60]	82 [25] / 147 [45]	1SSO:	3'-0"	F	5′-8″	4'-3"	7′-8″	5'-5 7/8" [1674]
[953]	300 [90] 350 [105]	262 [80]	Side Open	[914]	F/R	[1727]	[1295]	[2337]	6'-2 15/16" [1903]
2500	150 [45] 200 [60]	82 [25] / 147 [45]			F		4'-3"		5'-5 7/8"" [1674]
[1134]	300 [90] 350 [105]	262 [80]	-	3'-6" [1067]	F/R		[1295]		6'-2 15/16" [1903]
3000	150 [45] 200 [60]	82 [25] / 147 [45]	1SSO: Side Open 1SCO: Center Open		F	6′-6″	4'-9"	8'-6"	5'-11 15/16" [1827]
[1361]	300 [90] 350 [105]	262 [80]			F/R	[1981]	[1448]	[2591]	6'-8 15/16" [2056]
3500	150 [45] 200 [60]	82 [25] / 147 [45]			F		5′-5″		6'-7 15/16" [2030]
[1588]	300 [90] 350 [105]	262 [80]			F/R		[1651]		7'-4 15/16" [2259]
4000	150 [45] 200 [60]	82 [25] / 147 [45]			F		7'-3""		9'-0 1/2" [2755]
[1814]	300 [90] 350 [105]	262 [80]			F/R		[2210]		10'-1 1/4" [3079]
4500	150 [45] 200 [60]	82 [25] / 147 [45]	2SSO:	4'-0"	F	5′-6″	7'-11""	8'-2"	9'-8" [2946]
[2041]	300 [90] 350 [105]	262 [80]	Side Open	[1219]	F/R	[1676]	[2413]	[2489]	10'-9 1/4" [3282]
5000	150 [45] 200 [60]	82 [25] / 147 [45]			F		8'-5""		10'-2 1/2" [3111]
[2268]	300 [90] 350 [105]	262 [80]			F/R		[2565]		11'-3 1/4" [3435]

Notes: 1. All dimensions are based on Car height(CH): 8'-0"(2438mm) and Entracne height(EH): 7'-0"(2134mm)

<sup>2.</sup> The Hoistway dimensions width and depth are based on clear dimension  $+0 \sim 1"(0\sim26\text{mm})$  horizontal tolerances over the total hoistway height

<sup>3.</sup> For seismic zones, add 1"(26mm) to hoistway width

### Layout Plan - YZER(Machine-Room-Less Elevators) 150fpm~350fpm

### | Standard Dimensions

Unit: feet-inch(mm)

Capacity	Speed	Overhead	Pit Depth	PIT Re	action
Сараспу	Speed	OH	PP	PR1	PR2
lbs (kg)	fpm (mpm)	feet (m)	feet (m)	kN	kN
	150 [45]	12 0 [2006]			
2100	200 [60]	12'-9" [3886]		71	57
[953]	300 [90]	13'-5" [4089]		/ 1	57
	350 [105]	13'-10" [4216]			
	150 [45]	12 0 [2006]			
2500	200 [60]	12'-9" [3886]		81	64
[1134]	300 [90]	13'-5" [4089]		81	04
	350 [105]	13'-10" [4216]			
	150 [45]	121 01 (2000)			
3000	200 [60]	12'-9" [3886]		86	65
[1361]	300 [90]	13'-5" [4089]			00
	350 [105]	13'-10" [4216]			
	150 [45]	12  0   [2006]			
3500	200 [60]	12'-9" [3886]	5′	90	70
[1588]	300 [90]	13'-5" [4089]	[1524]		70
	350 [105]	13'-10" [4216]			
	150 [45]	13'-8" [4166]		106	85
4000	200 [60]	13'-9" [4191]		117	94
[1814]	300 [90]	14'-4" [4369]		146	116
	350 [105]	14'-5" [4394]		167	133
	150 [45]	13'-8" [4166]		106	83
4500	200 [60]	13'-9" [4191]		118	92
[2041]	300 [90]	14'-4" [4369]		149	115
	350 [105]	14'-5" [4394]		170	132
	150 [45]	13'-8" [4166]		114	88
5000	200 [60]	13'-9" [4191]		127	98
[2268]	300 [90]	14'-4" [4369]		163	125
	350 [105]	14'-5" [4394]		186	144

### **Power Feeder Data**

### YZER(Machine-Room-Less Elevators) 150fpm~350fpm

Capacity Ibs (kg)	Speed fpm (mpm)	Motor Capacity		Full Load Current (Iful)		Acceleration Current (lacc)		MCCB Capacity of Building (A)		Power Supply Capacity (kVA)		Power Cable Size (mm²)		Earth Wire Size (mm²)		Power Cable Size (AWG)		Earth Wire Size (AWG)	
ibs (kg)		(kW)	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	1 Car	2 Cars	
	150 [45]	4.7	8	16	15.2	30.4	20	30	9	18	4	6	4	6	12	10	12	10	
2100	200 [60]	6.3	10	20	19	38	20	30	11	22	4	6	4	6	12	10	12	10	
[953]	300 [90]	9.4	15	30	28.5	57	20	40	17	33	4	10	4	10	12	8	12	8	
	350 [105]	10.9	17	34	32.3	64.6	30	50	19	37	6	16	6	16	10	6	10	6	
	150 [45]	5.7	9	18	17.1	34.2	20	30	10	20	4	6	4	6	12	10	12	10	
2500	200 [60]	7.5	12	24	22.8	45.6	20	40	13	26	4	10	4	10	12	8	12	8	
[1134]	300 [90]	11.2	18	36	34.2	68.4	30	50	20	39	6	16	6	16	10	6	10	6	
	350 [105]	13.0	22	44	41.8	83.6	30	60	24	47	6	16	6	16	10	6	10	6	
	150 [45]	6.7	11	22	20.9	41.8	20	30	12	24	4	6	4	6	12	10	12	10	
3000	200 [60]	8.9	14	28	26.6	53.2	20	40	16	31	4	10	4	10	12	8	12	8	
[1361]	300 [90]	13.4	22	44	41.8	83.6	30	60	24	47	6	16	6	16	10	6	10	6	
	350 [105]	15.6	26	52	49.4	98.8	40	75	28	55	10	25	10	16	8	4	8	4	
	150 [45]	7.9	13	26	24.7	49.4	20	40	14	28	4	10	4	10	12	8	12	8	
3500	200 [60]	10.4	17	34	32.3	64.6	30	50	19	37	6	16	6	16	10	6	10	6	
[1588]	300 [90]	15.6	26	52	49.4	98.8	40	75	28	55	10	25	10	16	8	4	8	4	
	350 [105]	18.2	30	60	57	114	40	100	32	64	10	35	10	16	8	2	8	2	
	150 [45]	8.9	14	28	26.6	53.2	20	40	16	31	4	10	4	10	12	8	12	8	
4000	200 [60]	11.9	20	40	38	76	30	60	22	43	6	16	6	16	10	6	10	6	
[1814]	300 [90]	17.8	30	60	57	114	40	100	32	64	10	35	10	16	8	2	8	2	
	350 [105]	20.8	34	68	64.6	129.2	50	100	36	72	16	35	16	16	6	2	6	2	
	150 [45]	10	16	32	30.4	60.8	30	50	18	35	6	16	6	16	10	6	10	6	
4500	200 [60]	13.4	22	44	41.8	83.6	30	60	24	47	6	16	6	16	10	6	10	6	
[2041]	300 [90]	20.1	33	66	62.7	125.4	50	100	35	70	16	35	16	16	6	2	6	2	
	350 [105]	23.4	38	76	72.2	144.4	50	100	40	80	16	35	16	16	6	2	6	2	
	150 [45]	11.2	18	36	34.2	68.4	30	50	20	39	6	16	6	16	10	6	10	6	
5000	200 [60]	14.9	25	50	47.5	95	40	75	27	53	10	25	10	16	8	4	8	4	
[2268]	300 [90]	22.3	37	74	70.3	140.6	50	100	39	78	16	35	16	16	6	2	6	2	
	350 [105]	26	44	88	83.6	167.2	60	125	47	93	16	50	16	25	6	1	6	1	

Notes: 1. The values in the table above are based on 3 phase 480V.

 $<sup>2.\</sup> Power cable size is assuming \ max.\ 50\ m \ to \ maintain \ the \ maximum \ allowable \ voltage \ drop \ of \ 5\% \ based \ on \ the \ maximum \ starting \ current \ at \ operating \ with \ full \ load.$ 

### **Work by Others**

### Hoistway

- 1. Hoistway must be constructed to the final layout drawings (LOD).
- 2. The location of attachment support for the top rail bracket is at a critical elevation called out on the hoistway LOD.
- 3. An overhead beam must be provided at the location indicated on the hoistway LOD and designed to support 7500lbs per elevator.
- 4. Provide a clear plumb hoistway with variations from the size shown on the Hyundai layout not to exceed -0"/+1" (25mm) and not less than the clear dimensions shown on the Hyundai LOD.
- 5. Provide a dry, properly framed, enclosed and vented hoistway in accordance with all applicable codes prior to the start of installation.
- 6. Front Entrance wall at the Main Floor Landing and the Top Floor Landing are not to be constructed until the elevator is installed.

#### Smoke Detectors

- Provide Smoke Detectors in accordance with local code requirements terminating the necessary signals at the controller at the Top Floor Landing.
- 2. If sprinklers are provided inside the hoistway or machine space, see local code for special elevator disconnect requirements.

#### Pit

- 1. Pit floor must be designed to sustain vertical forces on car and counterweight rails and impact loads on car and counterweight buffers as shown on Hyundai LOD.
- 2. Pit must be clean and dry prior to start of installation.
- 3. Fixed ladders in each pit as required by governing code, size of pocket and location shown per Hyundai LOD
- 4. Pit Lighting must be provided in accordance with local code requirements.

#### Electrical

- 1. Power Conditions
  - 1) Three Phase: Prior to the start of the Elevator Installation, a permanent three phase 480 Volts electrical feeder with separate ground must be provided through a separate fused disconnect located next to the Elevator controller at the Top Floor Landing, and permanently wired in to the drive panel above the Top Landing Entrance. If 480 Volts three phase is not available, then a transformer must be provided to obtain the 480 Volts three phase.

- 2) Single Phase: A separate 115 Volts through a fused disconnect next to the test panel at the Top Floor Landing must be provided and permanently connected to the Test panel.
- Provide a permanent light at the top of the hoistway as shown on the Hyundai LOD and as required by local code requirements.
- 3. Provide electrical power for lights, tools, welding, hoisting, etc.
- Provide one dedicated outside phone line, and this line must be permanently terminated at the signal controller at the Top Floor Landing.

# Barricades must meet OSHA minimum requirements.

- 1. Provide OSHA guarding and protection of the hoistway at all times.
- 2. Prior to starting installation, OSHA freestanding removable barricades must be provided at all landing openings.
- 3. barricades shall be 42" high, have centerboard and kickboard and withstand 200lbs of lateral force.
- Provide full entrance screening/mesh in front of all hoistway entrances.

#### | Elevator job site Requirements

- Maintain the temperature and environment of the elevator hoistway and machine room between 41°F(5°C) to 104°F(40°C).
- The following conditions are required for maintaining elevator performance.
  - \* The relative humidity shall be below 90% on monthly average and below 95% on a daily average.
  - \* The elevator hoistway shall be finished with mortar or other materials so as to prevent concrete dust.
- 3. Voltage fluctuation shall be within a range of +5% to -10%.
- 4. Contact your Hyundai Elevator representative for more information.



Approved for CE Marking for all areas of elevator, an industry first in Korea



Accredited with KC (Korea Certification) for elevator safety



Accredited with ISO 9001, an industy first in korea



Accredited with ISO 14001, an industy first in korea



Accredited with ISO 45001 Certification



### HYUNDAI ELEVATOR CO., LTD.

Depending on the timing of the production of printed materials, there may be a difference between the content and the actual product sold, and some specifications may inevitably change due to quality improvement. When purchasing a product, be sure to receive guidance from our sales team.

#### Notes

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- 2. Specifications contained in this printed material are subject to change according to quality improvement and application of options.
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