Accredited with ISO 9001, an industry first in Korea

Accredited with ISO 14001, an industry first in Korea

Accredited with OHSAS 18001 Certification

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

Selected for GD (Good Design)

Accredited with KC (Korea Certification) for elevator safety

Underwriters Laboratories Inc. certification

Certified Korean national quality award winner
MARINE ELEVATORS

Occupying the largest share in the world marine elevators market, Hyundai Elevator provides tailored solutions through its world-class technology and experience.

WHY HYUNDAI ELEVATOR?

NO.1
- Ranked 1st in market share in the Korean elevator market for 11 consecutive years
- Ranked 1st in market share in the global marine elevator market
- Recorded the lowest accident rate in the industry

ALL IN ONE
Lead time minimized by establishing an enterprise-wide system dealing with in-house designing, purchasing, manufacturing, and quality control.

GLOBAL NETWORK
Maintenance service promptly provided at major ports around the world through our global service network.

ECO-FRIEND
- Eco-friendly and efficient management is pursued. As evidenced by reaching Class A on the energy efficiency scale (certification of Germany’s TÜV SÜD attained).

ENTRANCE DESIGN

SPECIFICATION

HALL INDICATOR BUTTON
- Stainless steel with hairline finished
- Car here light

LANDING DOOR
1. HINGED TYPE
- Steel with baked painting
- A-0 & A-60 Class fire proof door
- Vision glass (Option)

2. CENTER OPEN TYPE
- Steel with baked painting or stainless steel
- A-0 & A-60 Class fire proof door
- SL: Aluminium Alloy or Stainless steel (Option)

CAR DESIGN

SPECIFICATION

CAR WALL, CAR DOORS AND CEILING
- Steel with baked painting
- STS hairline finished
- STS etching finished
- STS mirror finished
- STS mirror etching finished

LIGHTING
- LED lighting with emergency light

VENTILATION
- Fan with louver

FLOORING
- Non-slip type vinyl sheet / rubber tile / STS bared plate

OPERATION PANEL
- STS hairline finished
- Key-lock switch: For restriction to enter into the designated deck (ISPS)
### Structure

#### FEATURES & SPECIFICATION

**SPECIFIC FEATURES**
- Upgraded safety allowance for the power factor and structures.
- Type approved fire proof landing doors (A-0 & A-60)
- Home landing operation
- Smoother & superior riding comfort
- Energy-saving control & drive system
- Efficient & accurate landing control system
- Efficient & easier installation and maintenance
- Fire, CO, or Halogen alarm provided as an option to prevent a person to accessing the engine room area in case of fire & gas leakage.
- EPS Requirement
- TCP/IP Application (Option: Telephone & CCTV)

#### STANDARD ARRANGEMENT IN HOISTWAY

**MAIN SPECIFICATION**
- Control System: Inverter (VVVF) drive with microprocessor control
- Speed (m/min.): 30, 45, 60 & 96
- Capacity (kg): 1900, 5000, 8000, 10000, 12500, 15000, 17000, 20000, 25000
- Operation: Selective Collective Control (2BC)
- Landing Door: Hinged Type: A-0 & A-60 Fire Class
- Center Open Type: A-0 & A-40 Fire Class

### Technology

#### MAIN EQUIPMENT

**TRACTION MACHINE**
The traction machine is driven by a squirrel cage induction motor and provided with an electromagnetic brake acting on the coupling between the gear and the motor. And, in order to prevent the vibration from the hall, isolation pad is equipped in the traction machine foundation.

**GENERAL SPECIFICATION OF MOTOR**
- Motor Protection: IP23, IP44 & IP54
- Insulation Class: B and/or F Class
- Starting times (2BC): 180 times/hour
- Ambient temperature: -45°C
- Variation Voltage: +6% ~ -10% at rated voltage
- Variation Frequency: ±2.3% at rated frequency

**LANDING DOORS**

- **Fire Proof Landing Doors**
- All types of Hyundai Elevator landing doors are designed especially for marine elevators. This first of all means that the doors are designed and fire-tested for a class (A & A-60) divisions in accordance with SOLAS.
- Furthermore, type approval certificates for each type have been issued by most national marine authorities and major classification societies.

**SAFETY DEVICES**

**DOOR INTERLOCK**
Each landing door is provided with an electromechanical lock connected in series with safety circuit. Hence, the elevator car cannot be started or kept in motion unless every landing door is fully closed and locked in compliance with safety requirements.

**EMERGENCY EXIT SWITCH**
If the emergency exit door on the car roof is opened, the power would be disconnected to prevent from the car moving.

**SPEED GOVERNOR**
If the car traveling speed exceeds the specified upper limit, the speed governor is activated, turning off the drive motor and activating the safety gear related with outer flame of the car whereby the car is stopped and secured to the rails.

**SAFETY GEAR (for Car & CWT)**
Safety gear for car and counter weight are provided under the car and counter weight. At the moment of emergency case (i.e. free-falling the car or counter weight), the safety gear related with speed governor is operated with gripping the guide rails.

**CAR DOOR SWITCH**
This switch prevents the car from starting unless the car doors are completely closed.

**CAR BUFFER**
Spring buffers are mounted in the elevator pit area at the bottom of the elevator trunk, under the car and counterweight.

**CONTROL PANEL**
The control panel is placed in the elevator machine room contains Main Inverter, PC Boards, relays, rolling/ pitching switch and relevant equipment for operation.

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**Image Description**

- **SAFETY DEVICES**
- **MAIN SPECIFICATION**
- **SAFETY GEAR (for Car & CWT)**
- **Car Buffer**
- **Emergency Exit Switch**
- **Emergency Light**
- **Control Panel**
- **Door Interlock**
- **EMERGENCY EXIT SWITCH**
- **BRAKING SYSTEM**

**Diagram**

- **Diagram of Landing Doors**
- **Diagram of Traction Machine**
- **Diagram of Safety Devices**
- **Diagram of Main Equipment**

**Chart**

- **Chart of Standard Arrangement in Hoistway**
- **Chart of Safety Devices**
- **Chart of Main Equipment**
- **Chart of Control Panel**
### Layout & Dimensions

**PLAN OF MACHINE ROOM**

**LOCATED BEHIND THE TRUNK**

Machine room dimensions: 1900 (MW) X 2350 (MD)

**LOCATED BESIDE THE TRUNK**

Machine room dimensions: 2050 (MW) X 2300 (MD)

**LOCATED ABOVE THE TRUNK**

Machine room dimensions for all elevators are the elevator trunk top with extension of 1400mm in one of the four direction

### ELEVATION OF ELEVATOR TRUNK

**LOCATED BEHIND THE TRUNK**

**LOCATED BESIDE THE TRUNK**

**LOCATED ABOVE THE TRUNK**

### STANDARD DIMENSIONS

<table>
<thead>
<tr>
<th>Load Capacity (Persons)</th>
<th>Speed (m/min)</th>
<th>Entrance Dim. (mm)</th>
<th>Internal Car Dim. (mm)</th>
<th>Trunk Dim. (mm)</th>
<th>P.O. Height (mm)</th>
<th>Overhead Height (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>350 kg (6 Persons)</td>
<td>2</td>
<td>800 x 2050</td>
<td>950 x 1500</td>
<td>1900 x 2300</td>
<td>1300</td>
<td>4400</td>
</tr>
<tr>
<td>500 kg (8 Persons)</td>
<td>3</td>
<td>1000 x 2050</td>
<td>1000 x 1500</td>
<td>2000 x 2400</td>
<td>1500</td>
<td>5000</td>
</tr>
<tr>
<td>750 kg (10 Persons)</td>
<td>4</td>
<td>1200 x 2050</td>
<td>1200 x 1500</td>
<td>2300 x 2500</td>
<td>1800</td>
<td>7500</td>
</tr>
</tbody>
</table>

**Notes:**

1. Trunk dimensions are the clear dimension except the deck cutting (opening), stiffener, insulation and etc.
2. Please consult with Hyundai Elevator when the specifications is different from the above table.

### Global sales & Service network

You can meet Hyundai elevator at landmarks in major cities all around the world.