ELEVIO Elevators® MR (Machine Room)

Escon provides complete elevator solutions for machine room. These open architecture solutions provide customers with most innovative, highest performing and most cost effective products in the industry.

Using Energy Wisely

Our Long term commitment is to develop energy-efficient elevators and create functions that makes intelligent use of power.

MILESTONES OF ENERGY-SAVING TECHNOLOGIES IN ELEVATOR DEVELOPMENT

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor</th>
<th>Traction</th>
<th>Motor drive</th>
<th>Control Circuit</th>
<th>Power consumption/CO₂ emission*3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>Induction motor</td>
<td>Worm geared</td>
<td>AC2 Control</td>
<td>Relay</td>
<td>100%</td>
</tr>
<tr>
<td>1980</td>
<td>Permanent magnet motor</td>
<td>Gearless</td>
<td>ACVV* control</td>
<td>Microcomputer</td>
<td>93%</td>
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<tr>
<td>1990</td>
<td></td>
<td></td>
<td>VVVF* control</td>
<td></td>
<td>74%</td>
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<tr>
<td>2000</td>
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<td></td>
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<td>37%</td>
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<tr>
<td>2010</td>
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<td>30%</td>
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</table>

Approx. -70%

Note: *1: Alternative current with variable voltage  *2: Variable voltages with variable frequency  
*3: CO₂ emissions in this table are from elevator operation and do not include emissions from manufacturing, transportation and other processes

Advantages of LED’S

LED Lighting (optional)

It is used for ceiling lights and hall lanterns, which will boost the overall energy performance of the building. Furthermore, a long service life eliminates the need for frequent lamp replacement to be used.

Devices that Use Less Energy

It provides LED Lightings with innovative designs

There is No Lead & Asbestos sheet in our products.

It has an Auto on/off- light/ fan mode

It also provides minimum carbon emission.

ESCON provides following features:

Continuously Elevating Towards Green

Escon uses environment friendly products and support Green Technology. We provide expertise solutions with assurance of safety, highest quality ride, reliability and cost efficiency. So you can be sure if you are with ESCON, you are in safe hands.

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Emergency Operation: To ensure passenger safety, our elevators are equipped with functions for emergencies like power failure and fire.

**Safety Devices**

Our elevators are equipped with safety systems.

- **Overload Holding Stop**
- **Safety Gear**
- **Buffers**
- **Encoder**
- **Final Limit Switch**
- **Entrance Door Locking Device**

A buzzer will sound and the door will remain open if the weight in car exceeds its rated capacity.

Should there be any problem with the hoisting rope, such as looseness, the safety will be activated instantly to grab the guide rail and keep the elevator from moving down.

Should the elevator exceed its range of movement and hit the bottom of the shaft, these buffers reduce the shock of impact and stop the car safely.

Encoder constantly monitors the direction & running speed of car and stops it if it exceeds the specified speed or the direction doesn’t match.

The elevator will stop if it travels exceeding its specified range of movement.

Entrance door is locked automatically, and will not open unless the car stops at the designated floor.

**Power Failure**

**Escon Rescue Device (ERD) (Standard)**

Upon electric power supply failure, a car automatically moves to the nearest lower floor either up or down depending on the number of passengers in elevator and doors open by using a rechargeable battery to facilitate the evacuation of passengers. Also, an emergency car light automatically turns on immediately and provides minimum level of lighting within a car by the chargeable battery.

Running time ERD is minimized, with ERD function gets completed as soon as the lift reaches floor level with door open. So overall efficiency of the system is improved. Door sensor (infra red full height sensor) comes integrated with ERD. Ease of operations is guaranteed with ERD. The motor over current protection and under current protection features are available with ERD. ERD design is as per EN-81 safety standard norms. Encoder feedback from the motor can be connected directly to ERD to check and set load sensing direction. Brake feedback signal can be connected to ERD to cross check whether the brake is energized & running smoothly.

**Fire**

**Firefighters’s Emergency Operation (FE) (Optional)**

When a push button or a building’s fire alarm is activated, all cars immediately return to specified floor and open the doors to facilitate the safe evacuation of passengers.
**Escon Integrated CAN Bus Serial V3F Controller**

ESCON Integrated CAN Bus Serial V3F controller Escon’s newly upgrade “Integrated Drive Controller” is very easy to adjust at site. This controller adopts “CAN BUS” serial communication technology.

Many of the human functions such as Duplex control, Group control, Remote Monitoring, Emergency rescue makes elevator operations highly safe and reliable. Cabling wires are reduced efficiently with new system configuration (car top board, car board etc). More stability and best in class ride comfort are realized due to the excellent V3F Drive System with this ESCON makes an “Integrated CAN Bus Serial” V3F controller approach.

**Technical Specifications**

1. Power supply with AC 380V to 460 Volts, 50HZ, (3) Phase
2. Power range with 5.5 KW to 22 KW
3. Rated speed with upto 1.75 MPS
4. Main controller with Escon Make Integrated Drive controller
5. Safety standard with EN 81
6. Landing mode with Direct landing
7. Accuracy of Levelling with Less than +_ 3mm
8. Environmental Temperature with -10 degree C to +45 degree C
9. Cabinet Colour with Dark grey/ Customize
10. Installation method with Escon type
11. Traction motor Adopted with ACPM Synchronous motor
12. Encoder Sincos with 2048 ppr.
13. Brake with DC 110V, rated current less than 4.5 amps
14. Rescue device with advanced ERD system

**Ecohaul- Gearless Elevator Machine**

In conventional AC motor the speed of rotation depends upon the load on the motor. Hence more the load less is the motor speed. In case of PMSM (Permanent Magnet Synchronous Motor) provided by Escon the rotation speed is directly proportional to frequency of the power supply. There are no gears.

The rotor is fixed to the traction sheave with no connection between stator and rotor

PMSM are compact and light machines with high efficiency due to the absence of gears. It is less noisy and provides unsurpassed smoothness and ride quality.

**Gaurdian Overspeed Governor**

As the name suggests, it governs the speed by braking the lift in case it ever exceeds its rated speed. Fail safe devices like these ensure strict adherence, to safety standards.

**Infra Red Full Length Door Detector**

The door detector projects a curtain of 80 criss cross (zig zag) and direct beams to detect person or object in the path of the closing door, reverses the opening process on detecting obstruction, restarts closing after the pre-set time lag for open door state.

**Powerhaul - Geared Elevator Machine**

The machine will be traction type with an AC motor, electro mechanical brake, heat treated alloy steel worm shaft, centrifugally cast bronze worm gear wheel and superior grade cast iron drive sheave all compactly mounted on a single base or bed plate. Taper roller bearings ensure end thrust absorption and spherical roller bearings ensure sufficient traction while minimizing rope wear and tear.
Elevio Automatic Passenger Elevators

The Elevio range of automatic passenger elevators from Escon employ advanced technology in vertical transportation. We provide comfortable, elegant, quick and safe mode for up & down movement in high rises. We are an amazing blend of state of art elevator technology and aesthetic appeal. Escon puts great emphasis on safety and the need to maintain disruption free motion of passengers. The Elevio range offers various passenger capacities, speed and an array of functional features and interior layouts to choose from. MR speed limit is up to 1.75 mps

In MR elevator type, machine is placed inside the machine room directly above the lift shaft. The control panel is placed inside the machine room.

Optional Features

- Voice announcement in multiple language option
- LCD display with message inside cabin and/or at landings
- Duplex control/triplex control
- Group supervision function
- VIP services
- Traffic regulation (for Elevator group)- reduced waiting time at landings
- Close loop system to monitor motor performance
- Detection of stuck hall button to skip landing
- Advance detection of floor before landing
- Car call cancellation system
- Automated monitoring system with potential free contact
- Handrail & mirror in car
- Mirror finish cabin panel
- Automatic rescue device
- Overload protection with display and buzzer
- In between landing call bypass on full load
- Car arrival gong and arrow
- Intercom facility
- Lift out of order display
- Clear glass door with stainless steel borders
- Touch screen
- Access card system
- Attendant operation for non stop destination landing
- Independent operation
- Fireman switch
- Destination control system (DCS)
- Automatic leveling at nearest floor on power restoration.

Standard Dimensions for Elevio Automatic Passenger Elevators

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Your Safety is our First Priority
Elevio Classic
Semi Automatic passenger Elevators

The Elevio Classic range of semi-automatic passenger elevators from Escon employ advanced technology in vertical transportation. We provide comfortable, elegant, quick and safe mode for up and down people movement in high rises.

Escon has an amazing blend of state of the art elevator technology and aesthetic appeal. Escon puts great emphasis on safety and the need to maintain disruption-free motion of passengers. The Elevio Classic Semi Automatic range offers various passenger capacities, speed and an array of functional features and interior layout to choose from.

Optional Features

- Voice announcement in multiple language options
- LCD display with message inside cabin and/or at landings
- Close loop system to monitor motor performance
- Advance detection of floor before landing
- Home floor parking
- Automated monitoring system with potential free contact
- Hand rail in car
- Mirror in car
- Mirror finish cabin panel
- Automatic rescue device
- Full collective system
- Overload protection with display and buzzer
- In between landing call bypass on full load
- Car arrival gong
- Intercom facility
- Lift out of order display
- Attendant operation for non-stop destination landing
- Direction change function in attendant mode
- Fireman switch

Standard Dimensions for Elevio Geared Semi Auto Passenger Elevators

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Car size</th>
<th>Shaft Size</th>
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</table>

GL = Gearless  GR = Geared

Machine room width = Shaft width + 1500
Machine room depth = Shaft depth + 2500

This picture is for reference only. The actual product may vary according to requirements.
Aura Observation Elevators

Aura observation / capsule elevator range is beauty in vertical motion. Escon has employed great artistry to combine aesthetics with functionality. Widely used in malls, commercial complexes and hospitality industry, this elevator with its plush interior, soft and silent vertical motion and the bird’s eye view of the outer world it offers to the passengers is synonyms with luxury in vertical transportation.

Optional Features
- Voice announcement in multiple language option
- LCD display with message inside cabin and/or at landings
- Duplex control/triplex control
- Group supervision function
- VIP services
- Traffic regulation (for Elevator group)- reduced waiting time at landings
- Close loop system to monitor motor performance
- Detection of stuck hall button to skip landing
- Advance detection of floor before landing
- Car call cancellation system
- Automated monitoring system with potential free contact
- Handsrail & mirror in car
- Mirror finish cabin panel
- Automatic rescue device
- Overload protection with display and buzzer
- In between landing call bypass on full load
- Car arrival gang and arrow
- Intercom facility
- Lift out of order display
- Clear glass door with stainless steel borders
- Touch screen
- Access Control
- Attendant operation for non stop destination landing
- Independent operation
- Freshman switch
- Destination control system (DCS)

Standard Dimensions for Observation Passenger Elevators

### Optional Features
- Attendant operation for non stop destination landing
- Independent operation
- Freshman switch
- Destination control system (DCS)

### Standard Dimensions for Observation Passenger Elevators

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Width</th>
<th>Depth</th>
<th>Shaft Size</th>
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**ELEVIO GR & GL TELESCOPIC OPENING DOOR (SIDE OPENING)**

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<th>Capacity</th>
<th>Width</th>
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<th>Capacity</th>
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**ELEVIO GR & GL CENTER OPENING DOOR**

<table>
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</table>
Car Finishes and Designs

Cabins Standard

Ceiling Standard

Ceiling Optional

Flooring Standard

SS Finishes Standard

PVC Coated Finishes

MS Finishes Standard

Flooring Optional

SS Finishes Optional

This picture is for reference only, The actual product may vary according to requirements

Car Operating Panel

Landing Operating Panel

This picture is for reference only, The actual product may vary according to requirements

Car Finishes and Designs

For Auto Doors

This picture is for reference only, The actual product may vary according to requirements