

# Passenger Elevators (MRL Gearless)

**Premium, space-saving, and energy-efficient solutions for modern buildings.**

## Quick Overview

- Speed up to 2.5 m/s
- Capacity 4–21 persons
- Travel up to 45 m / 20 stops
- Advanced Safety & Rescue Systems
- Energy Efficient Gearless Machine

## General Specifications

Type: MRL Passenger Elevator (Gearless traction)

Drive: VVVF (Variable Voltage Variable Frequency) Control

Machine Location: Inside the hoistway (top side), no separate machine room required

Operation: Automatic, collective selective control (up/down)

## Capacity & Speed

Rated Capacity	272 – 1600 kg (4 to 21 persons)
Rated Speed	0.5 – 2.5 m/s
Travel Height	Up to 45 m (model dependent)
Stops	Up to 16–20 stops (customizable)

## Safety Features

- Overload detection with audio-visual alarm
- Automatic rescue device (battery backup to nearest floor)
- Infrared door curtain (full height)
- Emergency alarm & intercom

- Safety gear and governor system
- Buffer in pit (oil/spring type)
- Fire emergency operation
- Biometric access control

## **Performance**

- Levelling Accuracy:  $\pm 3$  mm
- Ride Comfort: Vibration  $\leq 15$  mg, Noise  $\leq 55$  dB inside car
- Starting Current:  $\leq 150\%$  of rated current (soft start)