

Based in Barcelona, Spain, Linear Motor Applications, S.L. (LMA) was created in 2008 by partners with more than 25 years of experience in the automatic door industry.

With the strong belief that in the near future the automation of doors, windows and other similar applications would be based in this advanced technology, we have created five different brands for specific segments: doors, windows, curtains, industrial and contract.

Linear motors have proved to be the most efficient way to automate elements with horizontal movement, reducing traditional automation systems to a small compact unit, minimising maintenance by having fewer mechanical components.

What today represents a manual effort, we transform it to an automatic movement



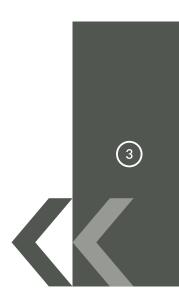






















A Linear motor is an electrically-powered motor that instead of rotating it produces a linear force along its length.

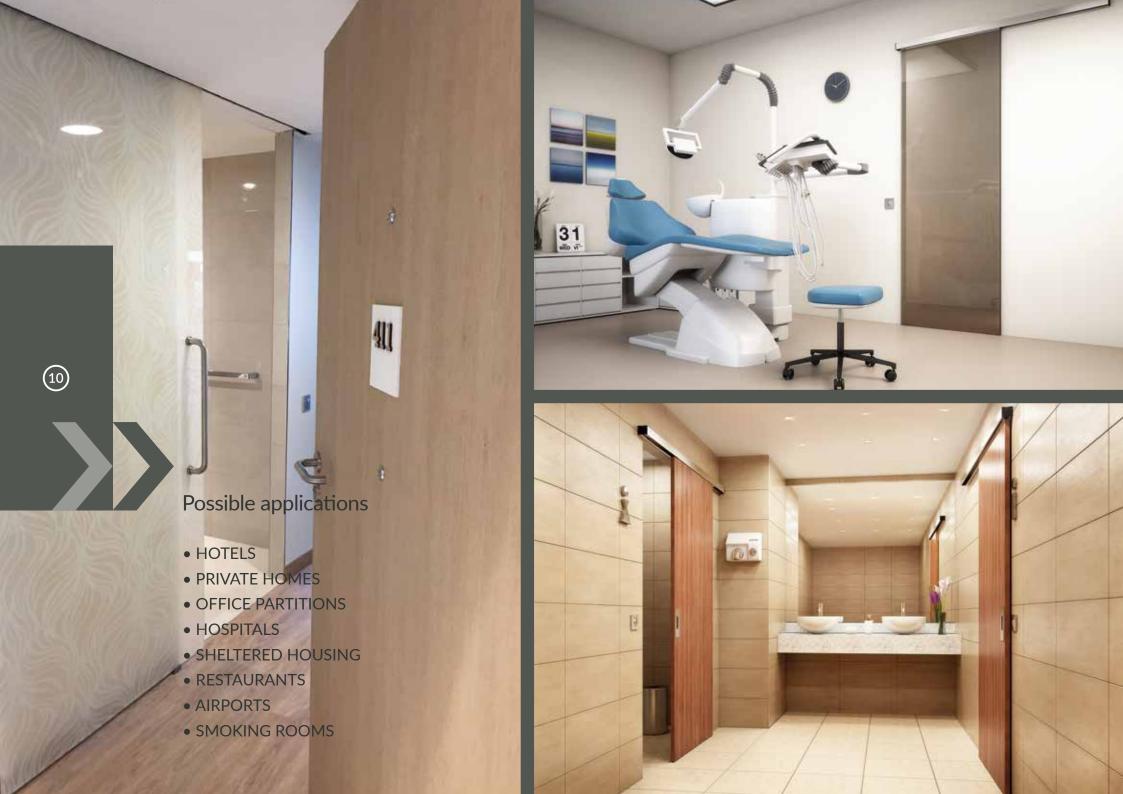
Thrust is caused through the interaction of magnetic fields within the motors, by magnetic attraction and repulsion.

Unlike traditional drive units, a linear motor drive does not have pulleys, belts, arms and other mechanical elements, resulting in a very compact and stylish housing of  $60 \times 65$  mm, very appropriate for indoor use.

The installation process is simplified, while maintenance costs reduce dramatically compared to traditional technologies using DC motors.

- 1. POWER SUPPLY: 230 V AC
- 2. INTERCONNECTION BOX
- 3. LEAF CARRIERS
- 4. THREE PHASE AC MOTOR
- 5. MAGNETS
- MOTOR DRIVER
- 7. DIP SWITCHES
- 8. ALUMINIUM HOUSING
- 9. COVER
- 10. SIDE COVERS







# Advantages of the EvoDrive





Accessories



1. Automatic lock





3. Touch-less switch The door is activated by simply approaching your hand or elbow



## Remote control

Four operating modes: Auto / Open / Close / Exit Only Receiver incorporated in the main control board Pocked size transmitter - 12V DC battery





## Push button

Press to activate the door. Optionally, press to open, and press a second time to close



# 5. Infrared sensor When the sensor detects

presence or movement, the door activates

#### Main technical features

- Compact aluminium housing: only 60x65/70mm (depending on version)
- Minimum clear opening: 750mm Drive length: 1.550mm
- Maximum clear opening: 1.400mm Drive length: 2.850mm
- · Leaf weight up to 80Kg
- · Adjustable opening speed: 200 to 800mm/s
- Adjustable acceleration and braking curves: 200 to 800mm/s2
- Low operating noise: <50dB
- Power supply: 230/110V AC 50-60Hz
- Power consumption:
  - In operation 80W
  - Peaks (0,2 sec) 150W
  - Stand-by **5W**

### Motor technical features

- Electric three phase AC motor type LSMPM Linear Synchronous Motor with Permanent Magnets
- Tension: 24V DC (standard); 36 48V DC (under request)
- Peak current: 5A
- Operating current: 3A
- Motor driver
  - Magnetic position feedback with 3 hall cells.
  - Motion control by means of a driver with field oriented control (FOC)
  - Wireless communication via Bluetooth

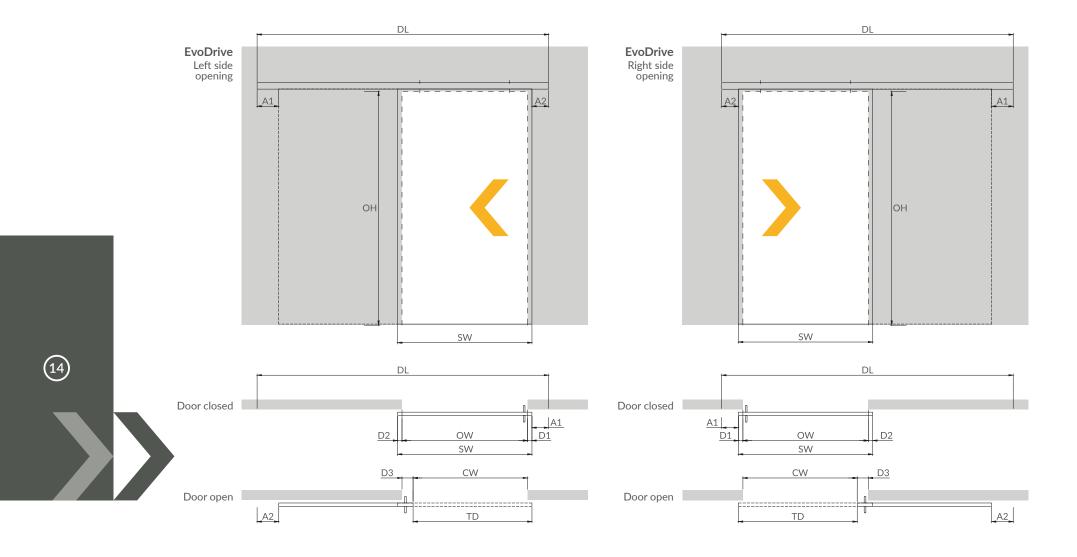
### Control panel technical features

- Operated by Microcontroller (MCU)
- Wireless communication via Bluetooth
- 5 operating modes
  - Automatic
  - Open
  - Closed or Closed/Lock (with optional auto lock)
  - Exit Only / Access control mode
  - WC mode (optional)
- Functions
  - Push&go
  - Cleaning mode
- Adjustable parameters
  - Opening direction: right or left
  - "Low energy" or normal mode
  - Opening speed
  - Closing force
  - Reopening sensitivity
  - Hold open time
  - Leaf weight
- Conform to European norms and directives in force
  - Directive 2006/42/EC on Machinery
  - Directive 2004/108/EC on "Electromagnetic Compatibility (EMC)"
  - Directive 2004/95/EC on "Safety of low voltage electrical appliances"
  - EN16005 "Power operated pedestrian doors. Safety in use"

Technical specifications







# Single slide interior door

#### SPECIFICATION TEXT:

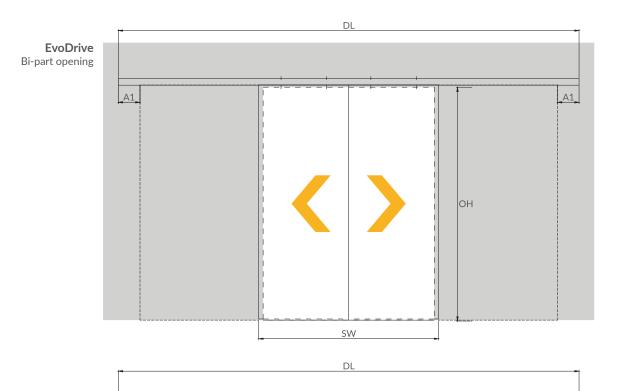
Automatic drive for interior single sliding door model EvoDrive by MOTION4, with linear motor technology. Composed of a 60mm high x 65mm deep aluminium housing, a three phase AC synchronous motor type LSMPM (Linear Synchronous Motor with Permanent Magnets), operating at 24V, and motor driver connected to the main control board via Bluetooth. The motor moves along the drive unit by means of attraction and repulsion of the magnets which are fixed aligned on the aluminium housing.

The single sliding drive unit has a total length of \_\_\_\_\_ mm, for a clear opening of \_\_\_\_\_ mm, opening from right to left.

The single sliding drive unit has a total length of \_\_\_\_\_ mm, for a clear opening of \_\_\_\_\_ mm, opening from left to right.

The automatic drive system fully complies with European Standard EN16005





OW

CW

SWR

TDR

D2

## Bi-part interior door

#### SPECIFICATION TEXT:

Automatic drive for interior bi-part sliding door model EvoDrive by MOTION4, with linear motor technology. Composed of a 60mm high x 65mm deep aluminium housing, two three phase AC synchronous motors type LSMPM (Linear Synchronous Motor with Permanent Magnets), operating at 24V, and motor drivers connected to the main control board via Bluetooth. The motors move along the drive unit by means of attraction and repulsion of the magnets which are fixed aligned on the aluminium housing.

The automatic drive unit has a total length of \_\_\_\_\_ mm, for a clear opening of \_\_\_\_ mm, with the two door leaves opening in opposite directions.

The automatic drive system fully complies with European Standard EN16005.

### Legend:

- DL Drive length
- OH Opening height
- OW Opening width
- CW Clear width
- SW Width of Sliding leaf
- TD Travelling distance
- D1/D2 Overlap

\_A2\_

- D3 Finger protection
- Ax Header extension

	Part Numbers:	
61013021	"EvoDrive" automatic drive for single sliding door. Complete with cover, remote control. Fully assembled	
61023021	"EvoDrive" automatic drive for bi-part sliding door. Complete with cover, remote control. Fully assembled	
69620004	Automatic lock, fail-safe	
69111003	Remote control (additional)	

SWL

TDL

D2

Door closed

Door open

\_A2\_

	Accessories for door leaves:	
67630001	Wood leaf adaptor and floor guide	
67640001	Aluminium leaf adaptor and floor guide	
67625001	Leaf hangers and floor guide for 8-12mm glass leaf with clamps	
67625002	Leaf hangers and floor guide for 8-12mm for full glass leaf	
67625003	Leaf hangers and floor guide for 8-12mm glass leaf, type TWINS	
	Activation and safety:	
69360002	Activation and safety:  Touch-less switch	
	,	
69130002	Touch-less switch	



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