

## E/EI Automatic Door



### 1. Description

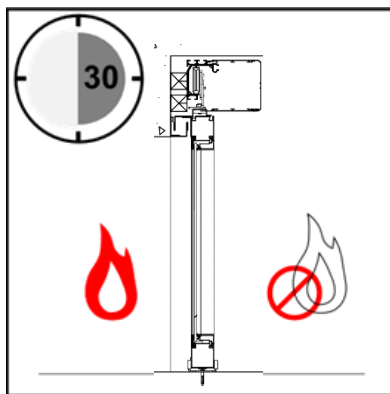
Automatic sliding fire door, with a single-slide leaf or central opening with two side-slide leaves, providing a large clear-width area.

The door is equipped with the Visio operator for high performance and reliability.

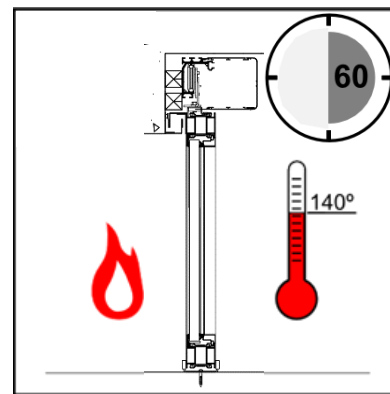
The door leaves are made of glass for total transparency and luminosity.

This product is designed and manufactured to guarantee:

- E30: Fire integrity for 30 minutes.
- EI60: Fire integrity and insulation for 60 minutes.



**E – INTEGRITY:** the capacity of a building component that acts as a barrier, to withstand exposure to fire on one side, preventing flames or hot gasses being transmitted to the side not exposed to the fire, in such a way that the non-exposed surface or any material adjacent to it does not become ignited



**I – INSULATION:** the capacity of a building component to withstand exposure to fire on one side, preventing the fire from being transmitted to the other side as a result of significant heat transfer. Heat transmission must be limited in a way that will not cause the non-exposed surface nor any other material located in the immediate vicinity of that surface to ignite. The door provides a sufficient heat barrier to protect persons located close by.

The insulation is classified additionally as  $I_1$  or  $I_2$  depending on the temperatures the non-exposed surface reaches, with  $I_1$  being more restrictive than  $I_2$ . The choice of category depends on the standards in force in each country.

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### 2. Components

The manusa E / EI automatic doors comprise:

- **The EI Visio operator:** equipped with a mechanical closing system consisting of counterweight that closes the door in case of a power malfunction or if the fire alarms are activated.
- **Steel-framed glass leaves:**
  - Type E30: made up of E30 glass framed by a system of 55mm-thick steel profiles.
  - Type EI30: made up of EI60 glass framed by a system of 70mm-thick steel profiles with thermal bridge, filled with a non-flammable insulating material.
- **Steel opening frame,** which, in the event of fire, remains perfectly sealed thanks to a continuous perimeter of intumescent material.

### 3. Motor group technical specifications

Motor group kinematic characteristics		
	E30 Door	EI60 Door
Adjustable leaf opening speed	≤ 1 m/s	≤ 0,7 m/s
Adjustable leaf closing speed	0,15 to 0,6 m/s	0,15 to 0,6 m/s
Adjustable closing force	40 N to 140 N	40 N to 140 N
Maximum acceleration	2 m/s <sup>2</sup>	2 m/s <sup>2</sup>
Independent regulation of speed/force	Sí	Sí
Leaf maximum weight	1 x 160 / 2 x 120 Kg	1 x 300 / 2 x 240 Kg

Motor group electric characteristics	
Standard power supply	220-240V +/-6% 50Hz
Power supply to order	100-120V +/-6% 60Hz
Permanent magnet synchronous linear	2 x Three-phase AC
Nominal power	265 W
Inverter technology (excl. Manusa)	VV-VF
Protection fuse	4 A
Operating temperature	-15°C to 50°C
Rechargeable fail-safe batteries (open/close)	2x12 V DC 700mAh

### 4. Chassis technical specifications

CHASIS TECHNICAL SPECIFICATIONS	
Operator dimensions (height x depth) [mm]	125 x 220
Allowable fastening types	Frontal

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### 5. Technical characteristics of the leaves

	Puerta E30	Puerta EI60
Width of leaf [mm]	55	70
Width of movable leaf / Minimum – maximum [mm]	500-1250	625-1250
Fixed leaf width / Minimum – maximum [mm]	500-1250	625-1250
Height of movable leaf / Minimum – maximum [mm]	Non limité -2240	1680-2240
Fixed leaf height / Minimum – maximum [mm]	Non limité -2240	1680-2240
Height of mobile guide [mm]	10	
Thermal transmittance [W / m <sup>2</sup> °K UNE-EN ISO 10077-1	NPD (undetermined performance)	
Air permeability UNE-EN 12207	NPD (undetermined performance)	
Acoustic insulation UNE-EN ISO 717-1	NPD (undetermined performance)	
Wind load UNE-EN 12210	NPD (undetermined performance)	
Burglary resistance UNE-EN 1627	NPD (undetermined performance)	



### 6. Safety Features

The function of the **manusa E / EI** automatic door, is the same as for a standard door except in the event of a power cut resulting from a fire, alarm, etc.

When this occurs, the door must remain in the shut position but NOT locked, that is, the leaves should be closed so that, should the fire reach them, flames and gases (E - Integrity) and high temperatures (I - Insulation) do not pass from one sector to another. For that reason, the operator is equipped with a counterweight system which guarantees closing.

In the event of a fire, when the fire directly reaches the enclosure, the intumescent materials come into action and seal the door in 4 or 5 minutes, preventing flames from spreading and the possibility of the door opening.

### 7. Compatibility with Door Leaves

	Frame E30
	Frame EI60

### 8. Applicable Regulations

Low Voltage Directive	2006/95/CE
Electromagnetic Compatibility Directive	2004/108/CE
Construction Products Regulation	305/2011/CE
Machinery Directive	2006/42/CE
Household and Similar Electrical Appliances. Safety. Door Drives.	EN IEC 60335-2-103
Detection Devices	EN 12978

## E/EI Automatic Door

### 9. Certifications

To certify their fire resistance, Manusa E/EI automatic doors have been tested and classified in accordance with the applicable UNE EN 13501-2:2009+A1:2010 regulations and the results have been collected in the following files:

	DOOR Tipología	REPORT	CLASSIFICATION	DIMENSIONES	
				Minimum	Maximum
E30	single slide opening without fixed panel	D01949	E30	PL=650 / HL=1900 AH=650 / HH=1900	PL=1200 / HL=2200 AH=1200 / HH=2200
	single slide opening with fixed panel	D01949	E30	PL=650 / HL=1900 AH=1415 / HH=1960	PL=1145 / HL=2200 AH=2405 / HH=2260
	bi-part opening without fixed panels	D01949	E30	PL=900 / HL=1900 AH=900 / HH=1900	PL=2400 / HL=2200 AH=2400 / HH=2200
	bi-part opening with fixed panels	D01949	E30	PL=900 / HL=1900 AH=2070 / HH=1960	PL=2250 / HL=2200 AH=4770 / HH=2260
EI60	single slide opening without fixed panel	D01960	EI <sub>2</sub> 60	PL=650 / HL=1900 AH= 650 / HH=1900	PL=1200 / HL=2200 AH=1200 / HH=2200
	single slide opening with fixed panel	D01960	EI <sub>2</sub> 60	PL=650 / HL=1900 AH=1385 / HH=1960	PL=1175 / HL=2200 AH=2435 / HH=2260
	bi-part opening without fixed panels	D01960	EI <sub>2</sub> 60	PL=1150 / HL=1900 AH=1150 / HH=1900	PL=2400 / HL=2200 AH=2400 / HH=2200
	bi-part opening with fixed panels	D01960	EI <sub>2</sub> 60	PL=1150 / HL=1900 AH=2570 / HH=1960	PL=2250 / HL=2200 AH=4770 / HH=2260

All of the tests were carried out by TECHNALIA (ENAC accreditation nº4/LE024) in accordance with the following standards:

EN 1363-1	EN 1634-1	UNE-EN 14600	EN 15269-5	UNE-EN 13501-2
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## E/EI Automatic Door

### 10. Finishes

The **operator** is made of aluminium. The **door leaves and the opening frame** are made of steel, allowing only a superficial lacquered finish.

**Lacquered:**

The lacquered finish is a protective covering made from plastic paint polymerised in an oven. The minimum lacquered thickness is 60 microns. Complete RAL range available.

### 11. Accessories

#### DETECTION

**HDS Hybrid Sensor**

Range of dual-technology sensors with activation and safety detection functions in the leaf closing area

**DDS Hybrid Sensor**

Dual-technology sensor range with activation and safety detection functions in the leaf closing area

**Planar sensor**

#### PROGRAM SWITCHES

**Smart Selector**

Program switch with an LCD display and intuitive controls, connected via a cable.

**Optima Selector**

Program switch connected via a cable. Surface-mounted or recessed options available.

#### OPENING CONTROL

**Smart-Prox Touchless Switch**

**Push button**

**Elbow push button**

**Outside key switch**

**Numeric code keypad**

**RFID access control system**

**GRF wireless range**

Wireless installation: Push button, elbow push button, outside key switch, numeric code keypad, 2/4 channel remote control, hands-free system

#### SAFETY

**Electromechanical lock**

A device for connecting to building automation and communications buses. In addition, thanks to the webserver, it allows individual remote control.

#### CONTROL Y COMUNICACIONES

**I/O Interface**

Module for airlocks and special functions

The characteristics indicated in this manual are purely informative and are in no way binding.  
The manufacturer reserves the right to make modifications without prior notice.



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