



ALUMINUM SECTION

# SLIDING ALUMINUM WINDOW

## ENNOVA





## SLIDING ALUMINUM WINDOW – ENNOVA

### 1.1 DESCRIPTION

The ENNOVA aluminum sliding window is equipped with two (2) single-pane interior shutters and two (2) double-sealed exterior panes, with horizontal translation allowing direct or indirect ventilation. This window is designed according to the principle of the rain screen, offering exceptional insulation and structural performance.

The window will have a neat and sturdy appearance, with rounded colonial-style shutters.

### 1.2 MATERIALS

#### 1.2.1 Profiles

##### 1. The frame

The frame will be made of 6063-T5 alloy aluminum profiles with walls that will be 1.27 mm thick.

The frame will be equipped with a multicellular thermal barrier of PVC GEON 6935, with a hardness of  $80 \pm 5$ , with the thickness of the outer and inner walls of 1.5 mm and 1.2 mm respectively.

The thermal barrier will be assembled to the frame by rolling-crimping and will be 19.1 mm high by 76.2 mm wide for the 7.5" frame and 61 mm wide for the 6" frame.

The outer part of the frame sill will be equipped with water drainage ports.

The frame will be 19.1 mm thick by 191 mm wide (7.5") or 152 mm (6").

##### 2. Exterior shutter

The external shutters, 56 mm high and 31 mm deep, will be made of a 6063-T5 alloy aluminum profile with walls that are 1.27 mm thick.

The recessed section of the external shutter will be designed to accommodate a double sealed unit with a thickness of 22.2 mm.

The sill room of the exterior shutter will be equipped with water drainage holes.

##### 3. Interior shutter

The interior shutters, 35 mm high and 11 mm deep, will be made of a 6063-T5 alloy aluminum profile with walls 1.27 mm thick.

The recessed section of the inner shutter will be designed to receive single glass with a thickness of 3mm to 6mm.

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### 1.2.2 Weather stripping

The horizontal crossbars and mouldings meet the external shutters will be equipped with a double-row bristle weatherstripping with a rigid back, inserted in the slide into the profile cavity. The traction mouldings will also be equipped with double-row weatherstripping.

The horizontal crossbars and the traction mouldings of the interior shutters will be equipped with a rigid bristle weatherstripping inserted in the slide in the cavity of the profile. The mouldings will also be equipped with a bristle weatherstripping.

The perimeter of the inner part of the frame will be equipped with a double-row bristle weatherstripping with a rigid back inserted in the slide in the cavity of the profile. The combination of interior weatherstripping will ensure a double-row junction along the entire inner perimeter of the frame, as well as at the moulding encounters.

### 1.2.3 Hardware

The casters of the outer shutters will be made of nylon, equipped with ball bearings, adjustable heights, with a metal housing, offering a tested capacity of 90kg (200 lbs) per shutter for 25,000 cycles, attached to the two (2) lower corners and will ensure easy maneuverability, without wear and tear and will be easily replaceable if necessary.

The inner flap rollers will be made of acetal, offering a capacity of 23kg (50 lbs) per flap, recessed at the bottom two (2) corners of the flaps and will ensure easy maneuverability, without wear and tear and will be easily replaceable as needed.

Rigid PVC dampers will be installed on the outer shutters to avoid direct contact between the shutters and the frame when closing and/or opening the shutters.

There is also a self-latching safety closing device, with variable height, on each shutter, as well as on the screen. This device will prevent the shutters from being opened from the outside. It can easily be replaced from the inside without special tools.

### 1.2.4 Mosquito net

The half-width screen will be installed between the two (2) pairs of shutters, juxtaposed with the exterior shutters, and will be operable from the inside at all times.

The insect screen will be made of an aluminum profile frame, assembled with mechanical joints fixed by zinc-plated steel screws.

The wick will be made of fiberglass or aluminum, with a sieve of 18 x 16 meshes at 625 mm<sup>2</sup>, held to the frame by a polyvinyl chloride profile.

There will be two (2) casters at the bottom corners as well as two (2) springs at the top corners.

The self-closing device installed on the insect screen, with variable height, will prevent it from opening from the outside.



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### 1.2.5 Interior and exterior finishes

All the exposed aluminum of the frames and glazing beads will be painted with a paint of the following type:

Coloured Duracron® Fired Enamel Finish:

Black K90421

White K1285

Brun commercial K7390

Two-component acrylic polyurethane paint available.

Anodizing available.

Possibility of different interior and exterior colors.

Optional color development.

## 1.3 PRODUCTS

- 1.3.1 The joints of the frames will be precision machined, assembled and sealed at the factory, so that they are waterproof and represent clean lines.
- 1.3.2 The sealed units and single glasses will be surrounded by a black flexible PVC flute and pressure embedded in the flap extrusions.
- 1.3.3 The external sill (sill) will have a slope of 6° and will be equipped with drainage holes to allow water to drain, thus satisfying the principle of a rain screen.
- 1.3.4 The outer and inner horizontal sections of the frame head will have fixed type sliders, which are part of the frame extrusions.
- 1.3.5 The windows shall be constructed precisely and squarely within a maximum tolerance of plus or minus 1.5 mm for windows measuring 1.8 m or less diagonally, and plus or minus 3 mm for windows measuring more than 1.8 m.
- 1.3.6 Pieces of rigid insulation will fill the interior and exterior cavities of the frame.
- 1.3.7 Each window will be wrapped in a clear protective membrane and the corners will be protected by thermoformed polystyrene pieces secured to the frame.
- 1.3.8 The frame's interior extrusions will be pre-drilled at the factory in preparation for mechanical attachment to the frame of a building.

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### 1.4 GLAZING

- 1.4.1 The transparent single glass of 3mm, 4mm, 5mm or 6mm, with low-e film on the #5 side, will be held in place by a flexible polyvinyl (PVC) profile groove inserted into the profile of the interior shutters.
- 1.4.2 The double sealed unit of the outer shutters will consist of two (2) sheets of single glass 3 mm thick, or more if necessary, separated by an air gap of 16.2 mm (variable according to the thickness of the glass sheets), obtained by means of a non-conductive spacer with integrated desiccant, for a total thickness of 22.2 mm.
- 1.4.3 The double sealed unit will be held in place by a flexible polyvinyl (PVC) profile spline inserted into the external shutter profile.
- 1.4.4 A clear space of approximately 4 mm will be left at the perimeter of the sealed unit and single glass, thus allowing the necessary clearance for water dripping.
- 1.4.5 The thickness of the glass as well as its tempering will comply with the requirements of the National Building Code in effect.

### 1.5 OPTIONS

#### 1.5.1 Glass

The sealed unit consists of two (2) sheets of clear glass that are 3 mm, 4 mm, 5 mm or 6 mm thick.  
Single glass with a thickness of 3 mm, 4 mm, 5 mm or 6 mm.  
Bronze, grey tinted glass.  
3mm, 4mm, 5mm or 6mm thick tempered glass.  
Frosted or sand glass.  
6 mm brocaded or laminated glass.  
6 mm glass with thermos formed surface.  
Any other glass available for the manufacture of sealed units.

#### 1.5.2 The frame

"J" shaped inner frame extension moulding made of 14mm aluminum extrusion. Mechanically installed to the inside frame of the window to accommodate gypsum or a wooden frame to be painted or covered with PVC.  
38 mm and/or 63 mm inner frame extension moulding and 38 mm outer frame extension moulding made of aluminum extrusions. These mouldings, mechanically installed on the surface of the interior and/or exterior frame of the window, ensure better adhesion and waterproofing with the installation membrane.  
Extruded aluminum junction piece used to join two (2) window frames or two (2) modules (Modular Assembly).

#### 1.5.3 Grilles

The tile, made of rolled aluminum, will be sealed between the two (2) sheets of glass of the sealed window unit.  
Flat, Georgian or tubular rectangular models with widths and finishes available on the market.  
The finish of the aluminum tiles will be Thermos hardened enamel, the same color on both (2) sides or different colors on the outside and inside.



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### 1.5.4 Simulated divided lites

The surface bar will be applied to the outer and inner faces of the sealed unit, facing each other. The inside of the glazing will be filled with a piece of rolled aluminum with the appearance of a spacer.

The bar, an A6063 alloy aluminum profile with a wall thickness of 1.55 mm, will be assembled on the outside and inside of the glass by a double-retained tape sealed across its width. Available widths: 44.45 mm and 22 mm.

## 1.6 MAINTENANCE SHEET

A sheet with the instructions needed to clean and maintain the windows will be given to you when your order is delivered.

## 1.7 WARRANTY

A manufacturer's warranty certificate will be given to you upon delivery of your order. The manufacturer reserves the right to change the characteristics of its products without prior notice.