

NC 50I DOORS & WINDOWS  
NC-S 150I LIFT & SLIDE

Under license from Metra Building Systems, Italy





**METRA**  
HYBRID

Under license from Metra Building Systems, Italy

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Under license from Metra Building Systems, Italy

We are thrilled to introduce you to a revolutionary product in the world of windows and doors – Metra Hybrid. As we embark on this exciting journey, we invite you to discover the perfect fusion of Indian craftsmanship and Italian excellence.

### **Why Metra Hybrid?**

At Metra, we have always strived to set new standards for innovation, quality, and performance in the realm of windows and doors. We understand the diverse needs of our customers and believe that every home or commercial space deserves a touch of elegance, superior functionality, and long-lasting durability.

Metra Hybrid represents a unique synergy. It brings together the finest Indian aluminum extrusion with world-class accessories and hardware from Metra S.P.A Italy. This exclusive collaboration offers a plethora of benefits that cater to the evolving needs of our customers.

### **The Metra Hybrid Advantage:**

- 1. Unmatched Craftsmanship:** Metra Hybrid represents a true marriage of skills. The robust Indian extrusion forms the foundation, ensuring strength, reliability, and easy maintenance. Meanwhile, the Italian accessories and hardware contribute unparalleled finesse and innovation, elevating the aesthetic and performance of our products.
- 2. Endless Customization:** We believe that every space is unique, and your windows and doors should reflect your personal style and architectural requirements. Metra Hybrid provides you with a wide array of options for customization, empowering you to choose the perfect solution for your project.
- 3. Quality and Durability:** With Metra Hybrid, you can rest assured that you are investing in products that are built to last. Our commitment to quality is unwavering, and this partnership with Italian excellence only strengthens our promise of durability.
- 4. Style Meets Functionality:** The amalgamation of Indian and Italian design philosophy creates products that are not only stunning but also highly functional. You'll enjoy not just enhanced aesthetics but also improved performance, be it in terms of energy efficiency, soundproofing, or security.
- 5. A World of Possibilities:** Metra Hybrid opens up a world of possibilities for architects, builders, and homeowners. It provides the flexibility to incorporate innovative design elements, creating spaces that are truly exceptional.

### **Experience the Future of Windows and Doors:**

We invite you to explore our catalog, visit our showrooms, or contact our dedicated team to learn more about the extraordinary products and endless possibilities that Metra Hybrid brings to the world of windows and doors. Together, we will create living spaces that are beautiful, efficient, and built to last.

**METRA HYBRID: Where Indian Extrusion Meets Italian Hardware, and Dreams Become Reality.**



# **NC 50I DOORS**





# Cromodora Wheels





# NC 50I Doors

The NC 50 I system is recommended for both industrial buildings as well as communal spaces. NC 50 I ensures great durability, resistance to atmospheric agents and high acoustic insulation.

This adds value to countless architectural settings.

## Advantages:

- System Hardware from Metra, Italy for Maximum performance
- Wide range of finishes
- Easy maintenance
- High-level design
- Various opening typologies
- Minimal amount of space
- Maximum acoustic insulation

## Technical Features:

### Base dimensions:

from 50 to 60 mm

### Air tightness:

open joint NC 50 I;

double rabbet gasket NC 50 I

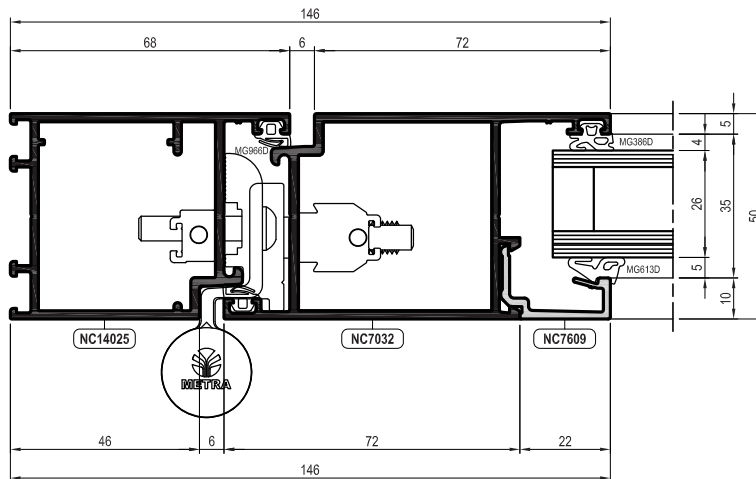
### Glass thickness:

3-8mm/ 13-18mm/ 28-33mm

### Aesthetic lines:

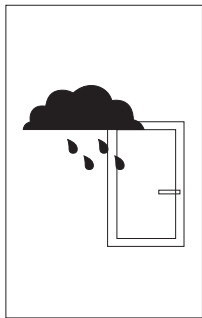
Piana

## Section NC 50 I





## Certified Performances



### Water tightness EN 1027 - EN 12208

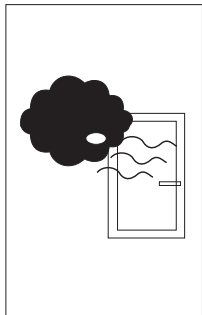
The METRA window or door has not had any seepage of water even with a wind pressure equal to a speed of 111,54 km/h (600Pa).

Air pressure applied  
km/h

**Class achieved**

(0Pa)	(50Pa)	(100Pa)	(150Pa)	(200Pa)	(250Pa)	(300Pa)	(450Pa)	(600Pa)	(900Pa)
0	32,2	45,53	55,77	64,39	72	78,87	96,59	<b>111,54</b>	136,6
1A	2A	3A	4A	5A	6A	7A	8A	<b>9A</b>	E900

Capacity of the window or door to block seepage of water when it is struck by a water flow and there is a pressure difference between the internal and external side.



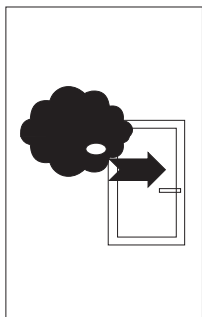
### Air permeability EN 1026 - EN 12207

The METRA window or door was subjected to a wind pressure equal to a speed of 125 km/h (750Pa) and passed the test with positive results.

Air pressure applied  
**Class achieved**

(150Pa)	(300Pa)	(600Pa)	(600Pa)
1	2	3	<b>4</b>

Characteristic of a closed vent to let air pass through when the internal and external pressures are mutually different; the smaller the volume dispersed, the greater the window or door quality.



### Resistance to wind load EN 12211 - EN 12210

The METRA window or door was subjected to a wind pressure equal to a speed of 203,6 km/h (2000Pa) and passed the test with positive results.

Air pressure applied  
With deflection  
**Class achieved**

(400Pa)	(800Pa)	(1200Pa)	(1600Pa)	(2000Pa)	(>2000Pa)
A (1/150)		B (1/200)		<b>C (1/300)</b>	
1	2	3	4	<b>5</b>	Exxx

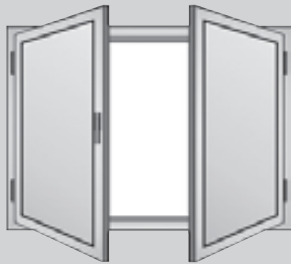
Capacity of a window or door subjected to high pressure and/or suction, such as those caused by wind, to remain within admissible deformation limits and to conserve its initial properties so as to ensure protection and safety to the users.



NC 501  
DOORS & WINDOWS



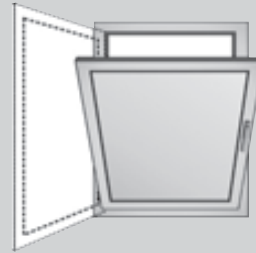
## Opening Typologies



Double side-hung casement



Single side-hung



Tilt and turn casement



Bottom-hung



Horizontal pivot casement



Vertical pivot casement



Top hung casement



Tilt-and-slide



NC 501  
DOORS & WINDOWS

# NC 50I Doors : Technology

## Features

### Basic dimensions:

50 to 60 mm

### Air-water-wind tightness:

Open joint (windows and French windows)

Rabbit double gasket (entrance doors)

### Glass thickness:

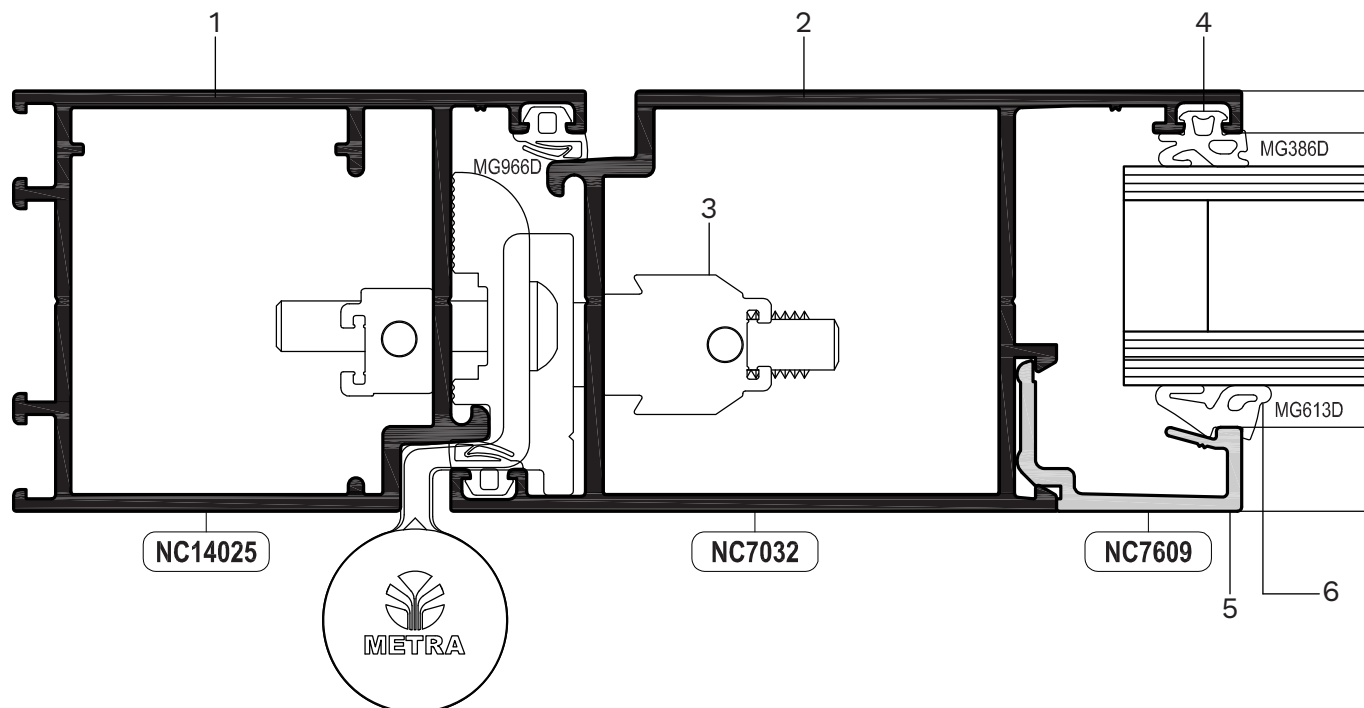
3-8mm/ 13-18mm/ 28-33mm

### Aesthetic lines:

Piana

## Technology

- 1 Frame
- 2 Sash
- 3 Hinge
- 4 External Glass Gasket
- 5 Glass Bending
- 6 Glass Gasket





NC 501  
DOORS & WINDOWS

08

009

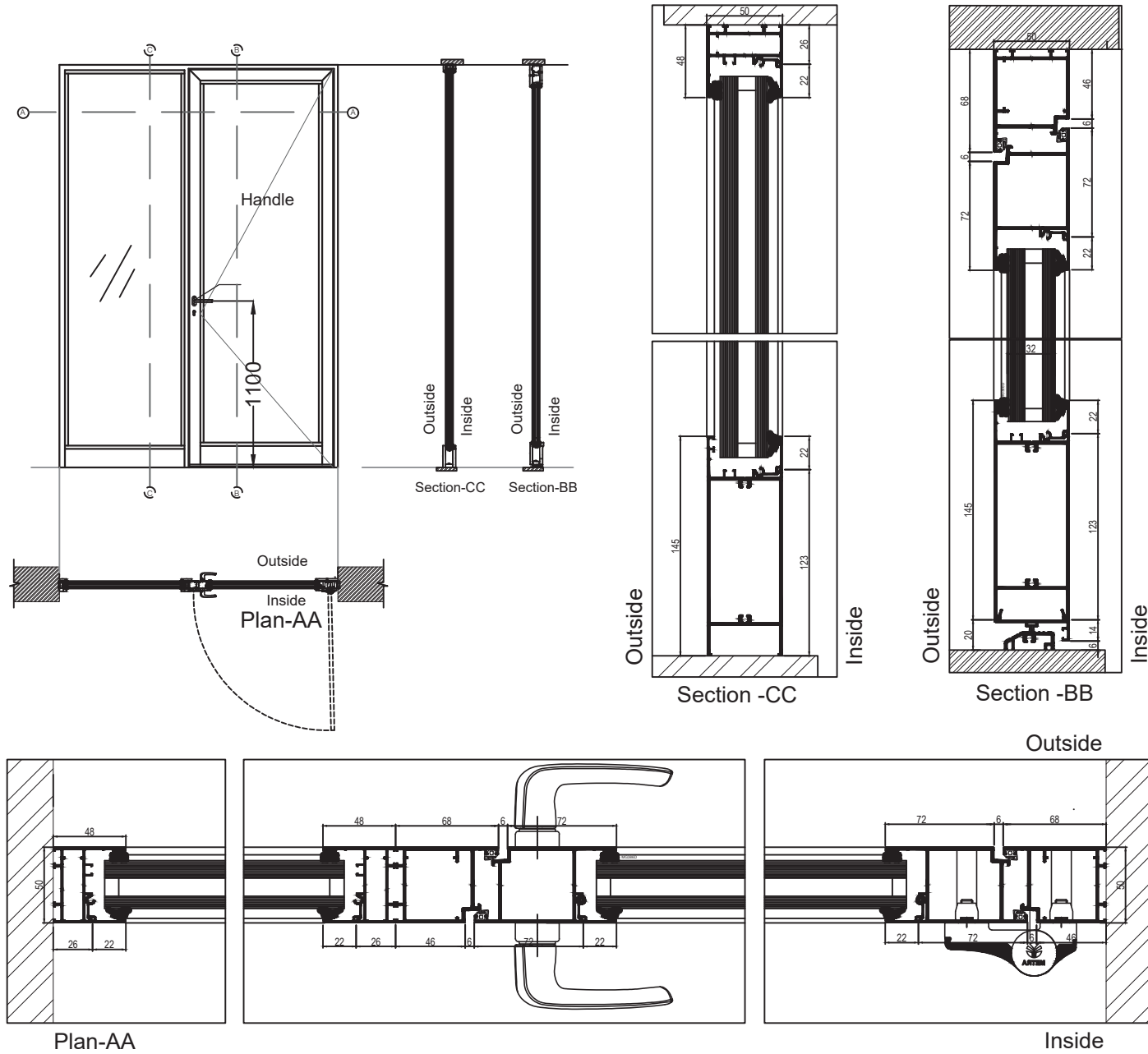
001

09



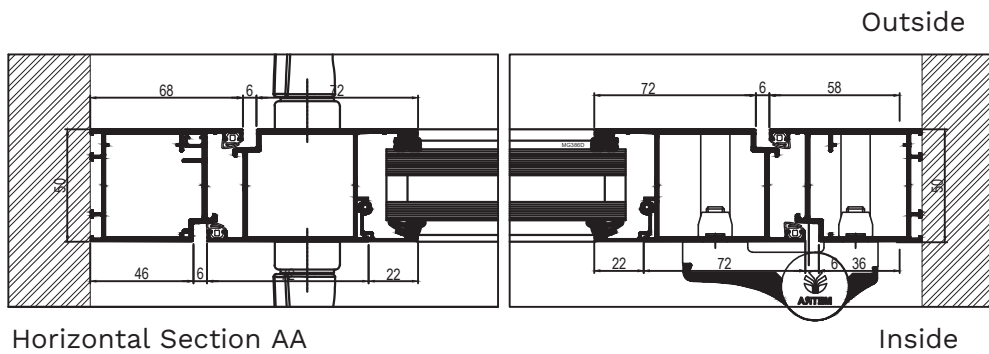
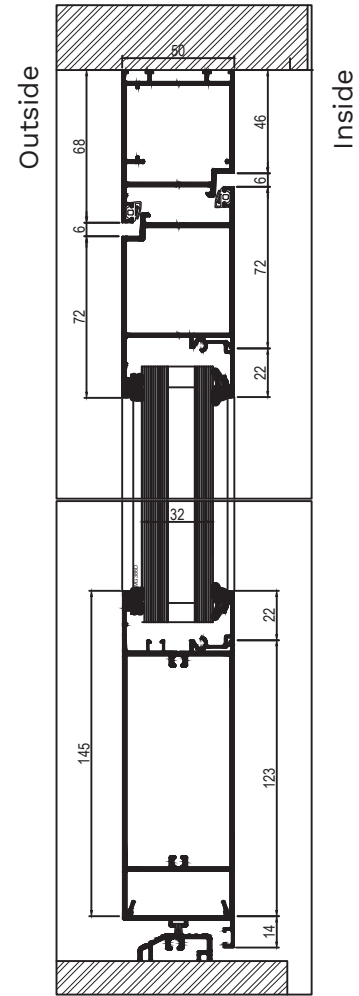
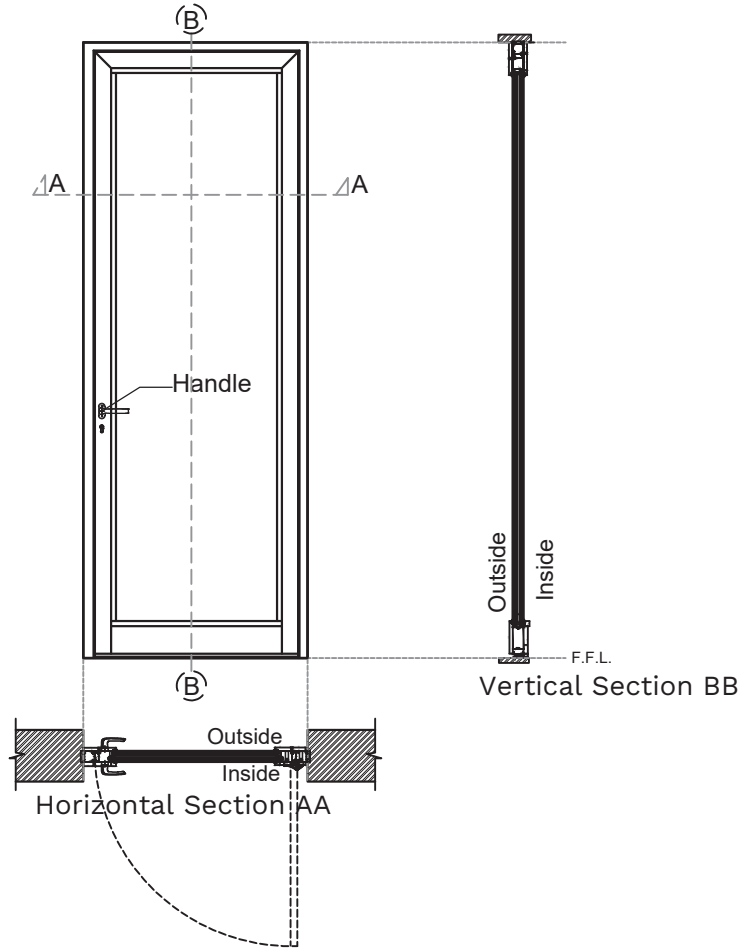


## Inside Openable Single Leaf Door + Side Fix



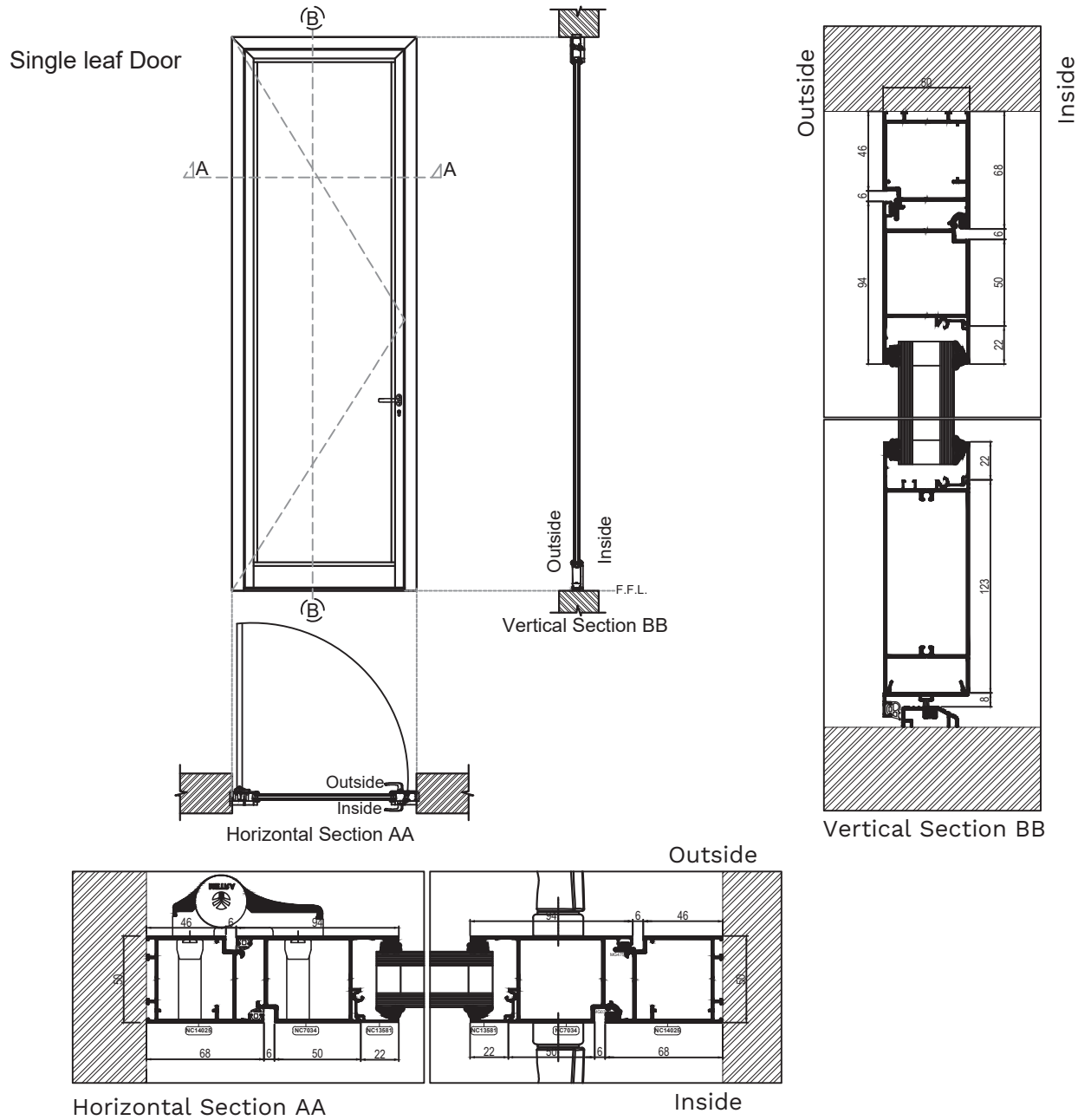


# Inside Openable Single Leaf Door





# Outside openable



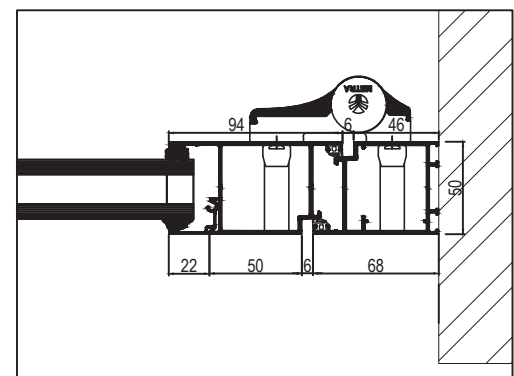
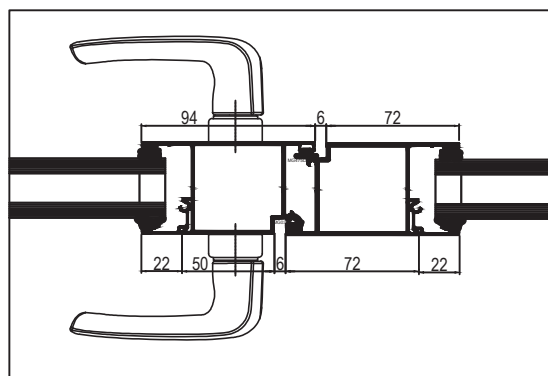
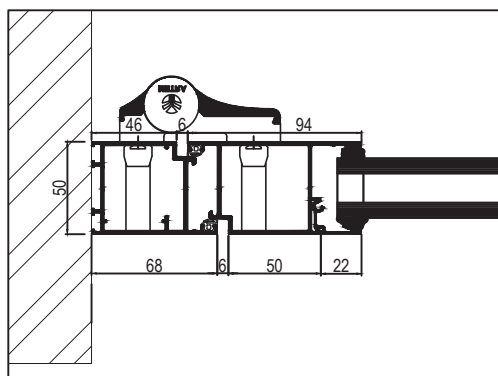
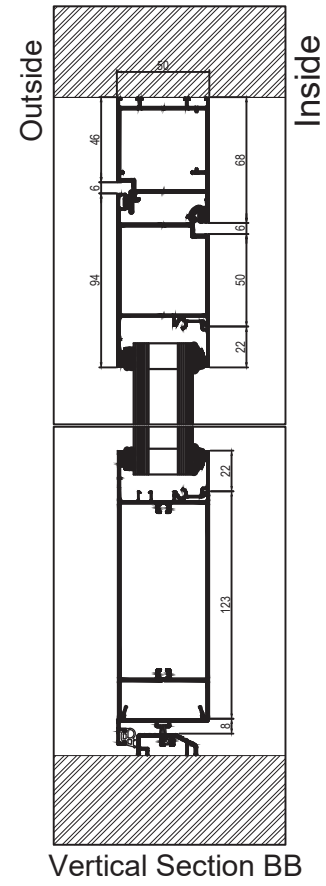
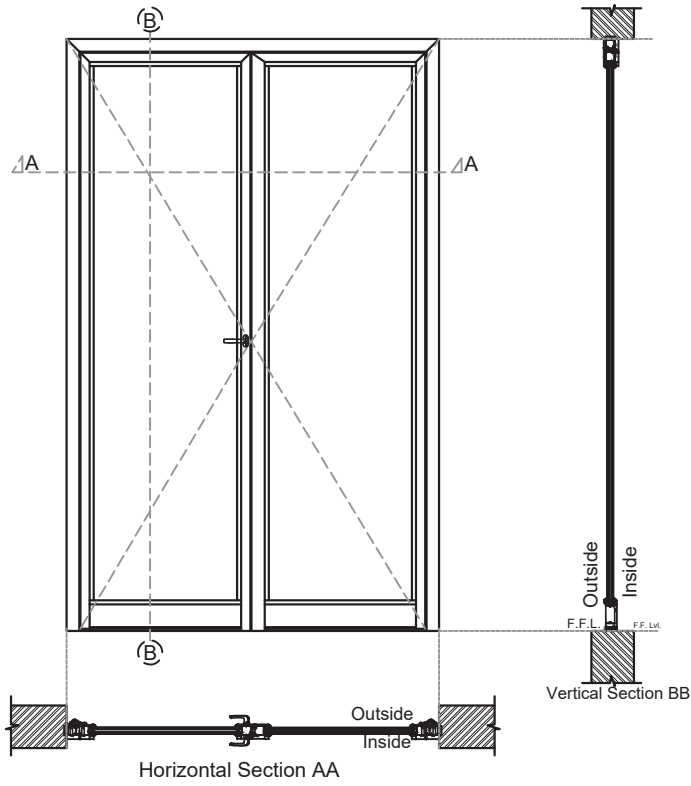


NC 50I

DOORS & WINDOWS

DETAILED SECTION

## Outside openable Double Leaf Door



Horizontal Section AA

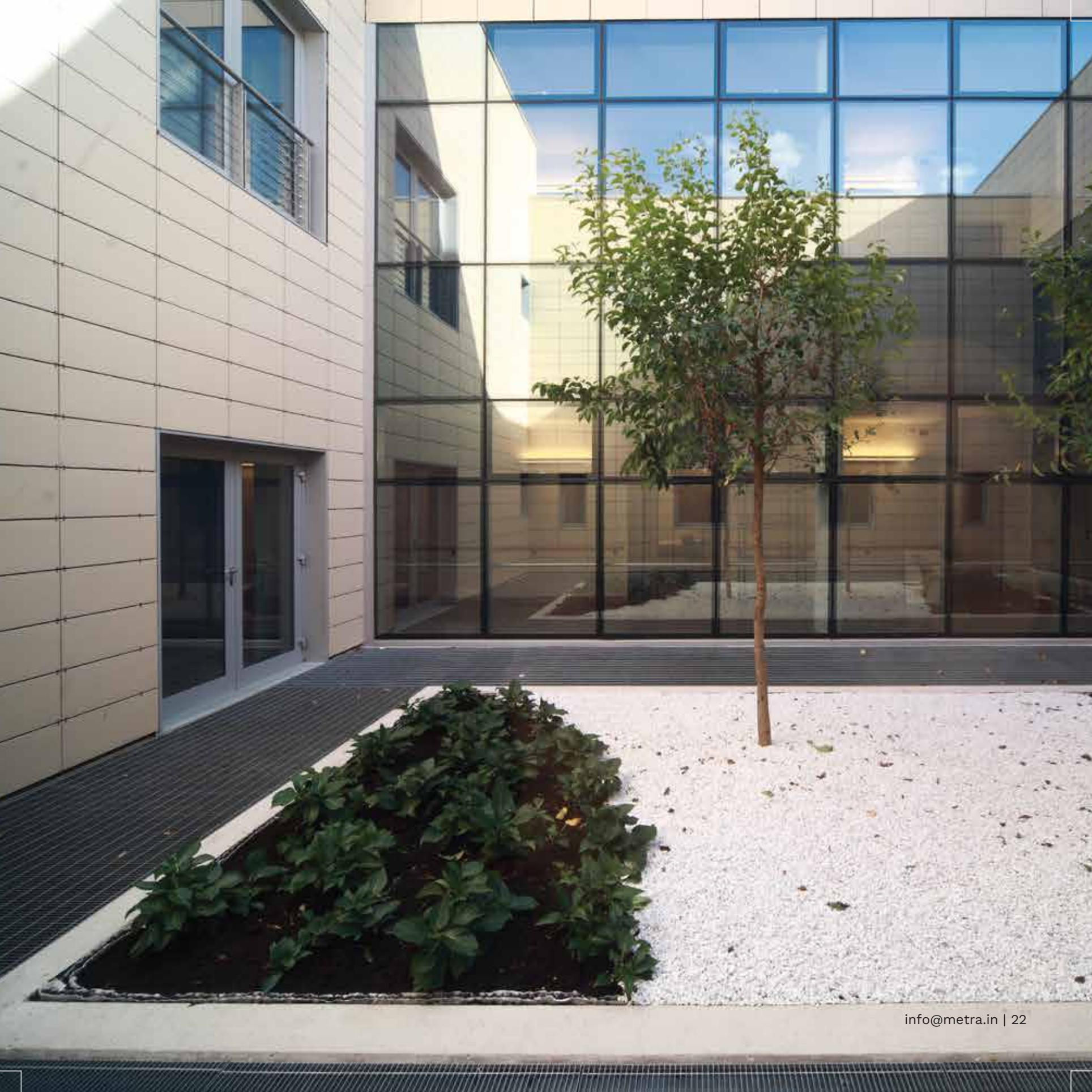
Inside





NC 501  
DOORS & WINDOWS







NC 501  
DOORS & WINDOWS







# **NC 50I WINDOWS**







# NC 50I Windows

The NC 50 I system is recommended for both industrial buildings as well as communal spaces. NC 50 I ensures great durability, resistance to atmospheric agents and high acoustic insulation.

This adds value to countless architectural settings.

## Advantages:

- System Hardware from Metra, Italy for Maximum performance
- Wide range of finishes
- Easy maintenance
- High-level design
- Various opening typologies
- Minimal amount of space
- Maximum acoustic insulation

## Technical Features:

### Base dimensions:

from 50 to 60 mm

### Air tightness:

open joint NC 50 I; Fixed

double rabbet gasket NC 50 I - Casement

### Glass thickness for Fixed window:

6-8mm/ 13-18mm/ 28-33mm

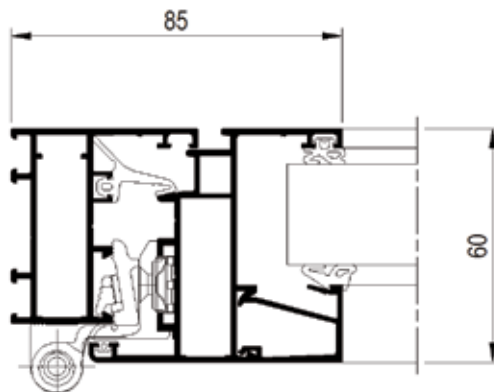
### Glass thickness for Openable windows:

13-18mm/ 23-28mm/ 38-43mm

### Aesthetic lines:

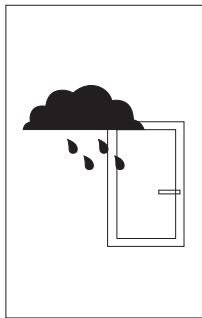
Piana

## Section NC 50 I





## Certified Performances



### Water tightness EN 1027 - EN 12208

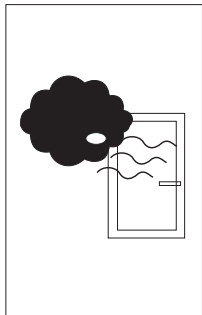
The METRA window or door has not had any seepage of water even with a wind pressure equal to a speed of 111,54 km/h (600Pa).

Air pressure applied  
km/h

**Class achieved**

(0Pa)	(50Pa)	(100Pa)	(150Pa)	(200Pa)	(250Pa)	(300Pa)	(450Pa)	(600Pa)	(900Pa)
0	32,2	45,53	55,77	64,39	72	78,87	96,59	<b>111,54</b>	136,6
1A	2A	3A	4A	5A	6A	7A	8A	<b>9A</b>	E900

Capacity of the window or door to block seepage of water when it is struck by a water flow and there is a pressure difference between the internal and external side.



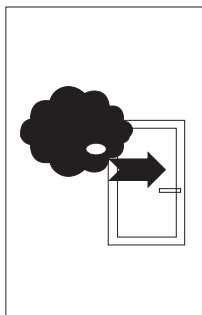
### Air permeability EN 1026 - EN 12207

The METRA window or door was subjected to a wind pressure equal to a speed of 125 km/h (750Pa) and passed the test with positive results.

Air pressure applied  
**Class achieved**

(150Pa)	(300Pa)	(600Pa)	(600Pa)
1	2	3	<b>4</b>

Characteristic of a closed vent to let air pass through when the internal and external pressures are mutually different; the smaller the volume dispersed, the greater the window or door quality.



### Resistance to wind load EN 12211 - EN 12210

The METRA window or door was subjected to a wind pressure equal to a speed of 203,6 km/h (2000Pa) and passed the test with positive results.

Air pressure applied  
With deflection  
**Class achieved**

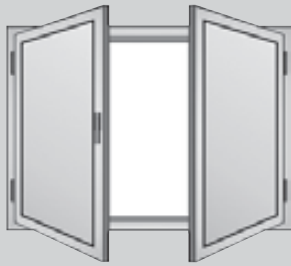
(400Pa)	(800Pa)	(1200Pa)	(1600Pa)	(2000Pa)	(>2000Pa)
A (1/150)		B (1/200)		<b>C (1/300)</b>	
1	2	3	4	<b>5</b>	Exxx

Capacity of a window or door subjected to high pressure and/or suction, such as those caused by wind, to remain within admissible deformation limits and to conserve its initial properties so as to ensure protection and safety to the users.





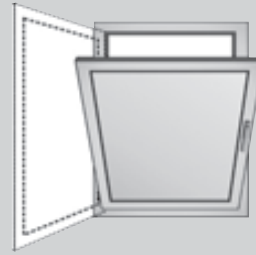
## Opening Typologies



Double side-hung casement



Single side-hung



Tilt and turn casement



Bottom-hung



Horizontal pivot casement



Vertical pivot casement



Top hung casement



Tilt-and-slide



WS

## NC 50I Windows : Technology



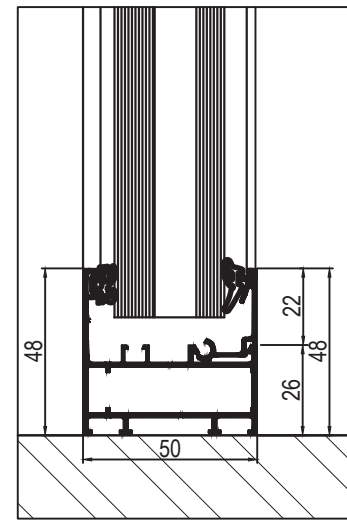
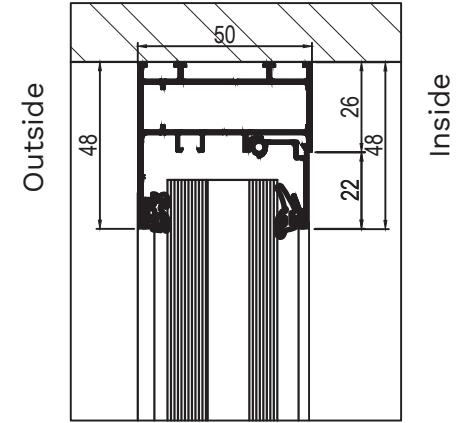
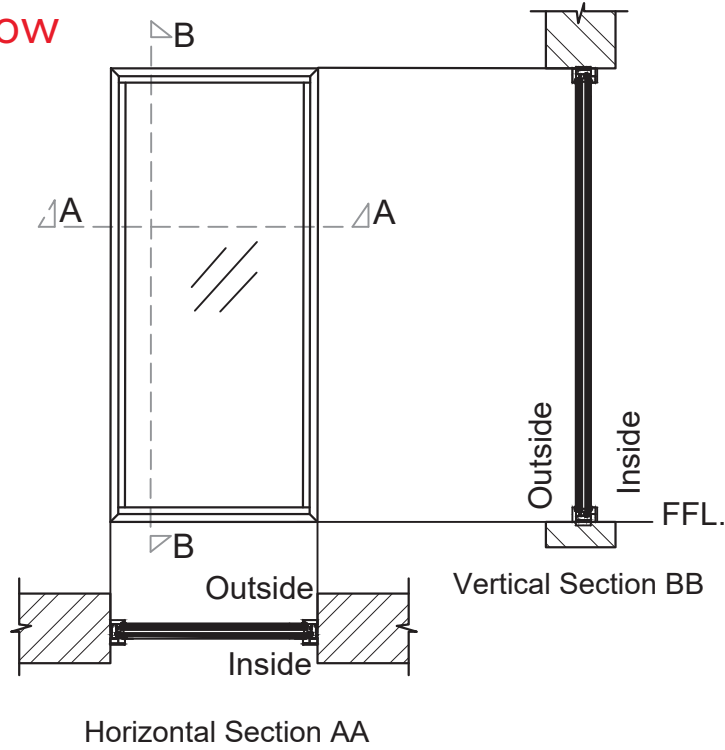


NC 501  
DOORS & WINDOWS

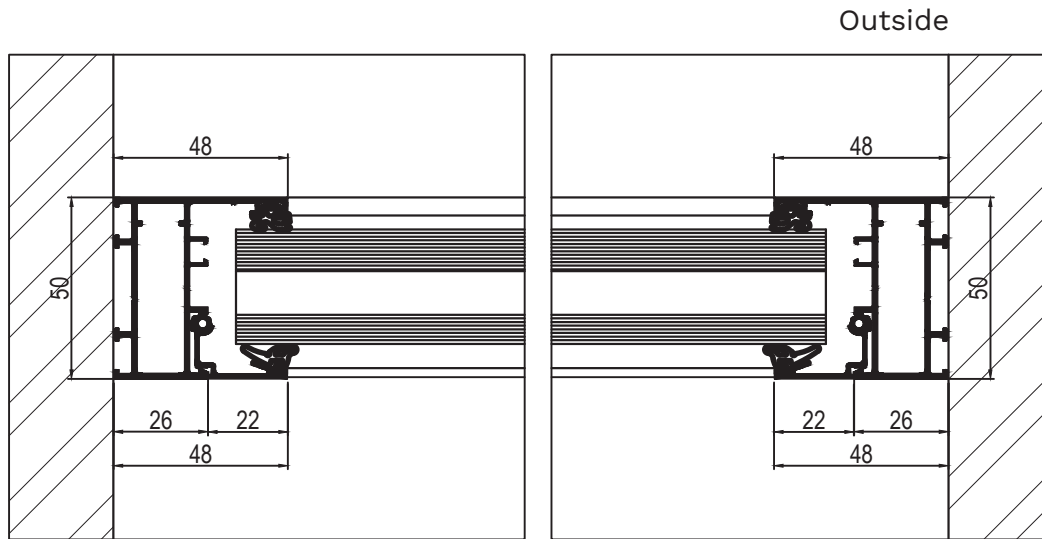




Fixed Window



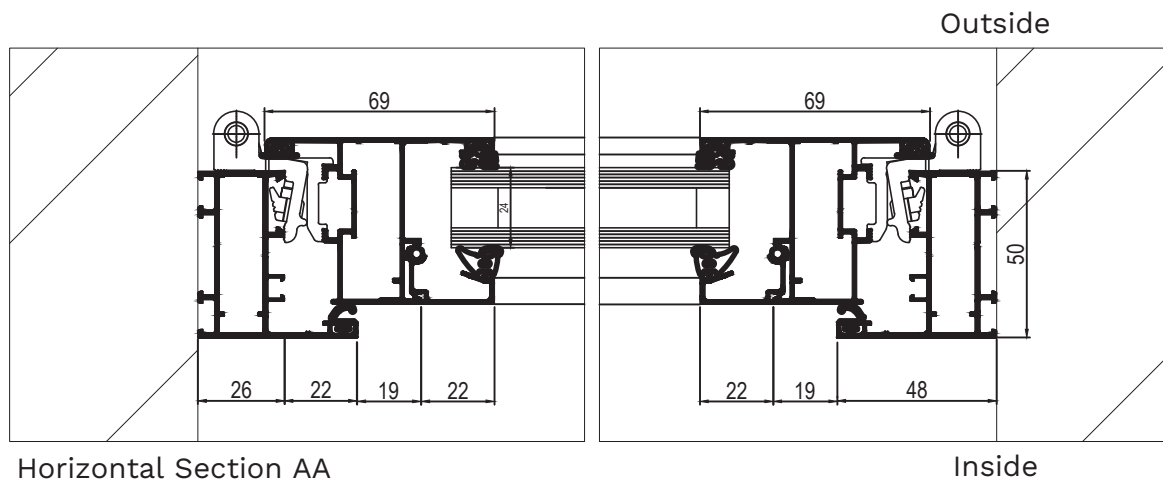
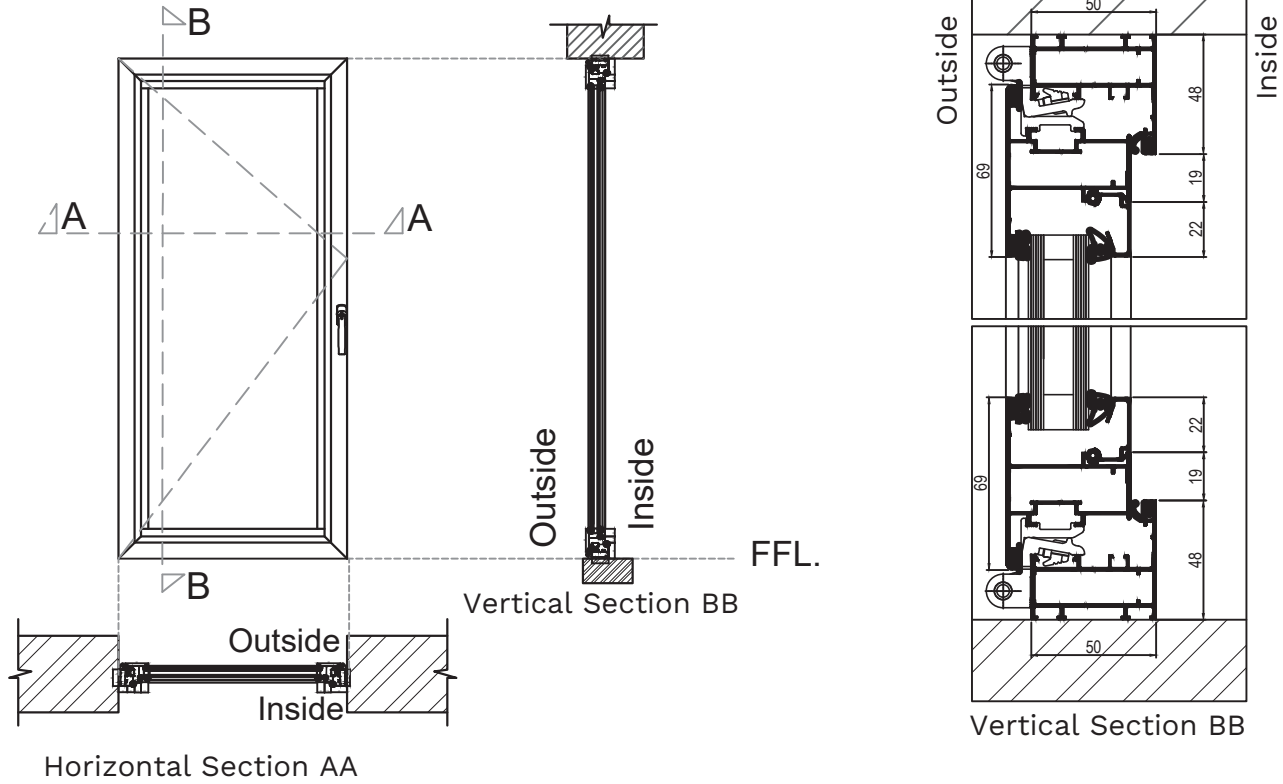
Vertical Section BB



Horizontal Section AA

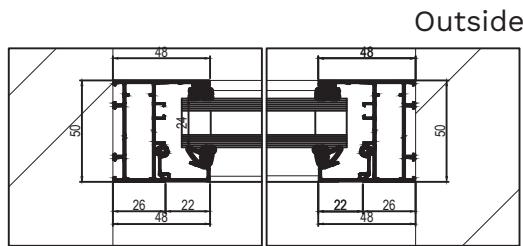
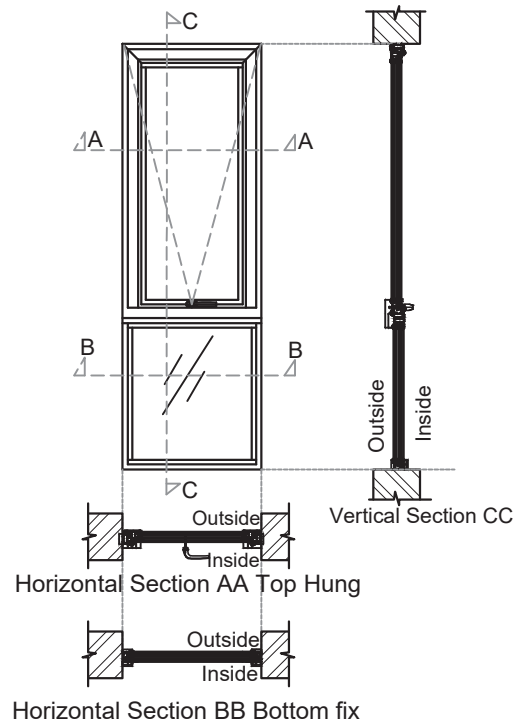
Inside

## Outside Openable Single Leaf Window

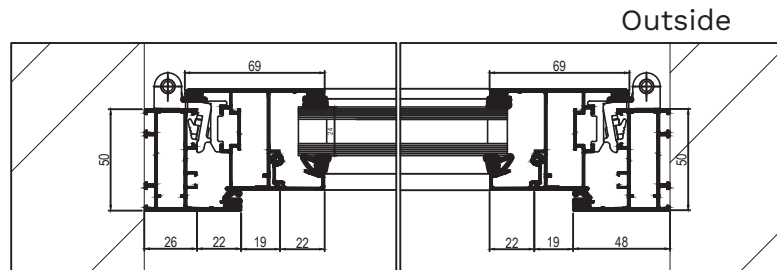




# Top Hung + Bottom Fix

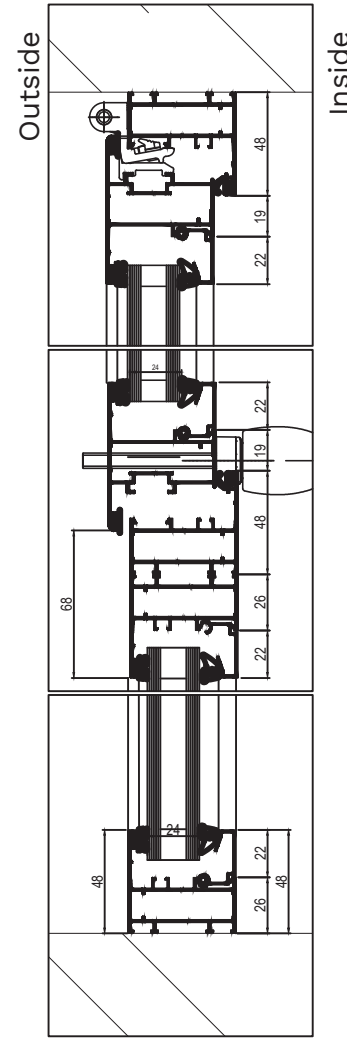


Horizontal Section BB Bottom fix Inside



Horizontal Section AA Top Hung

Inside



Vertical Section CC

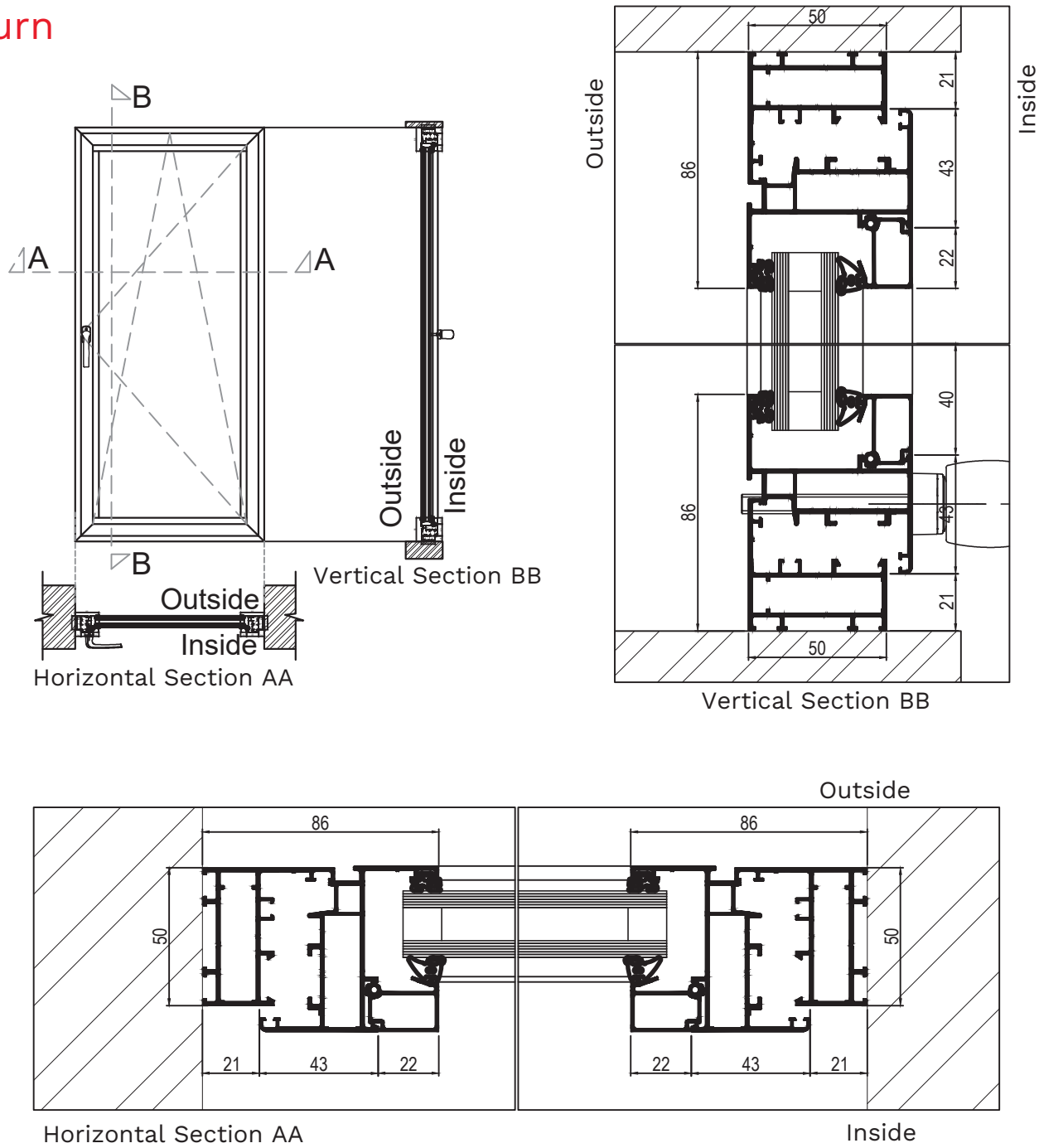


NC 50I

DOORS & WINDOWS

DETAILED SECTION

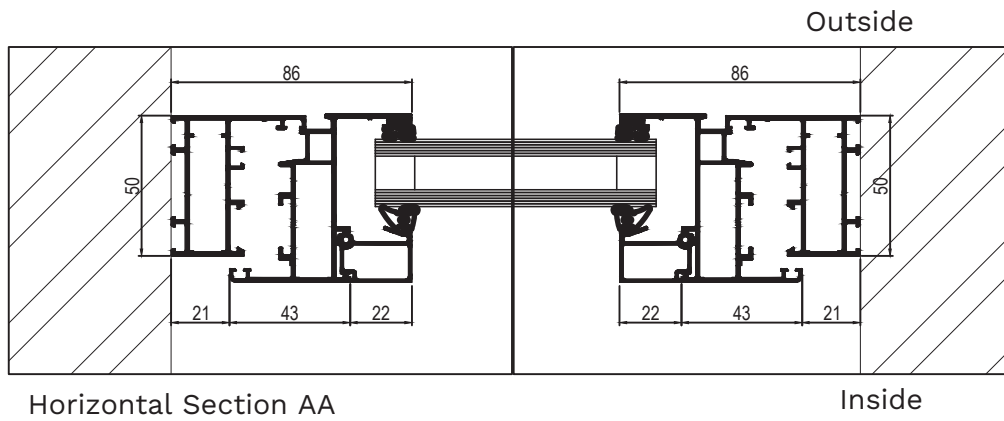
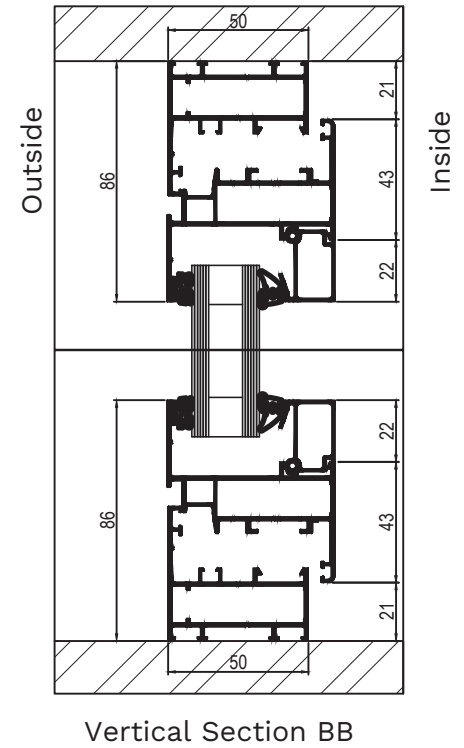
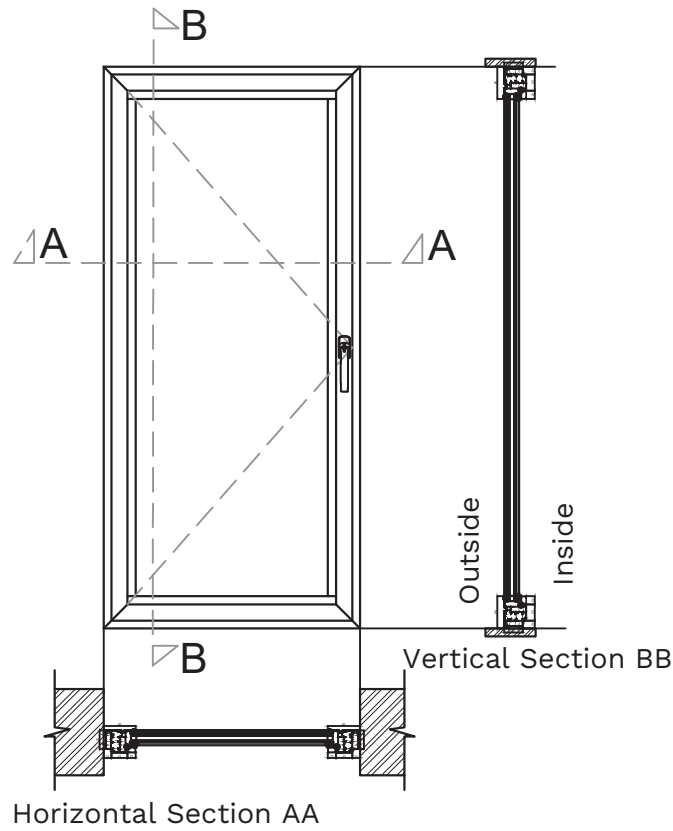
## Tilt & Turn



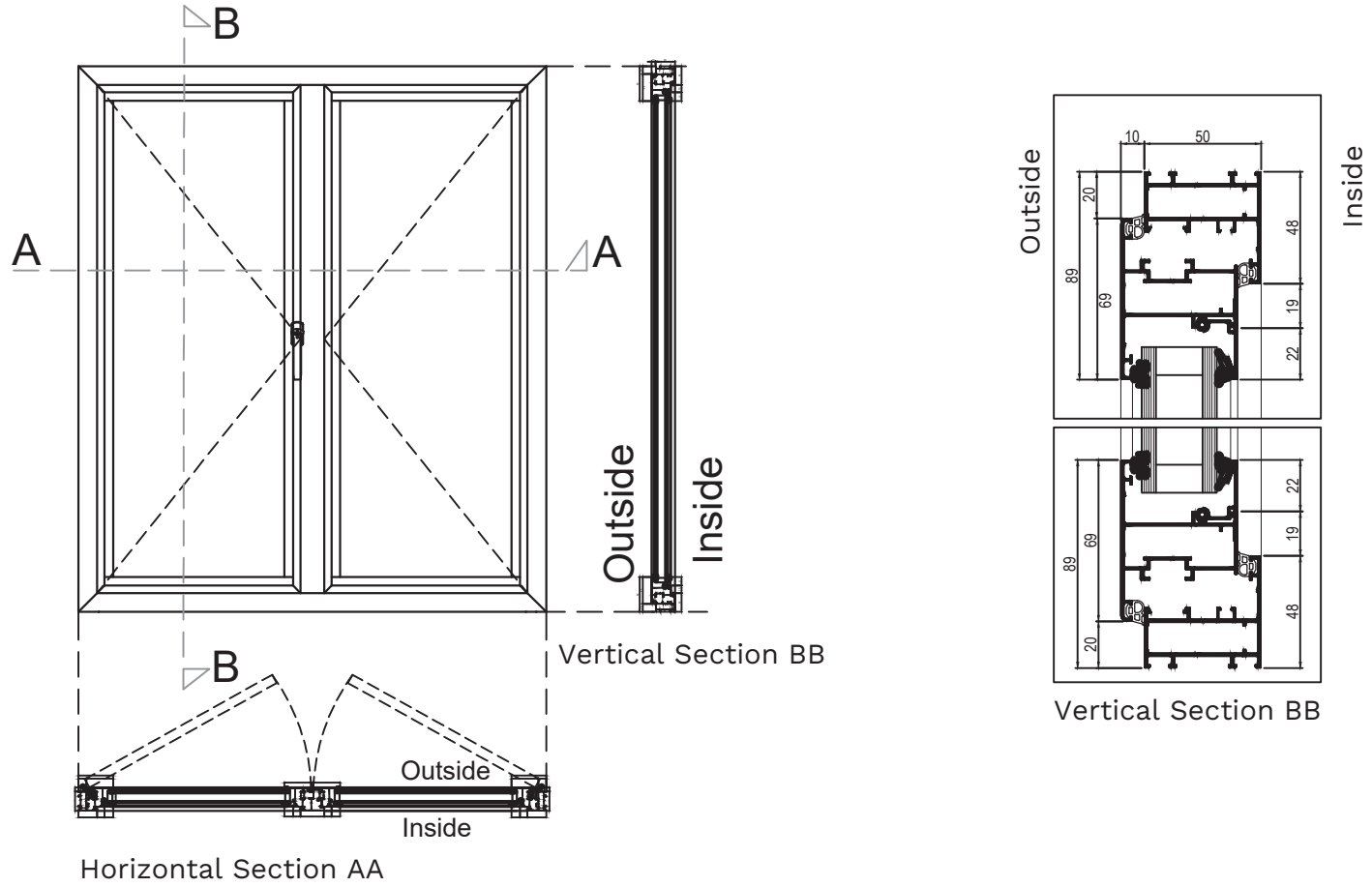




# Inside Openable Window



## Outside Openable Double Leaf Window









# **NC-S 150I LIFE & SLIDE**

NC-S 150I  
LIFT & SLIDE



# NC-S 150I Lift & Slide

The NC-S 150I system is recommended for both industrial buildings as well as communal spaces. NC-S 150I ensures great durability, resistance to atmospheric agents and high acoustic insulation.

This adds value to countless architectural settings.

## Advantages:

- System Hardware from Metra, Italy for Maximum performance
- Wide range of finishes
- Easy maintenance
- High-level design
- Various opening typologies
- Minimal amount of space
- Maximum acoustic insulation

## Technical Features:

### Base dimensions:

from 140 to 150 mm

### Air-water-wind tightness:

EPDM or brush gasket

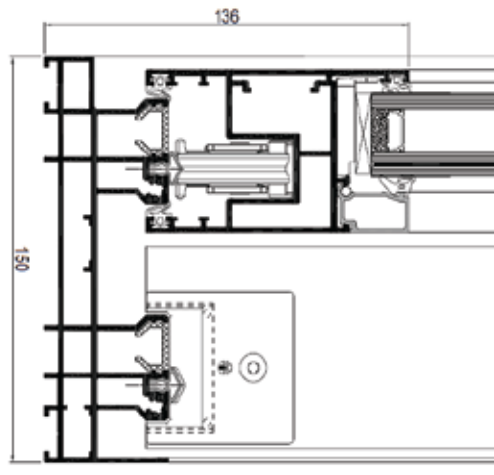
### Glass thickness:


13-18mm/ 24-27mm/ 39-43mm

### Max load each sash:

Sash weight from 150kg to 600kg

## Section NC-S 150I



 NC-S 1501  
LIFT & SLIDE





# Certified Performances



## Water tightness EN 1027 - EN 12208

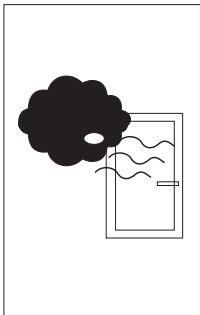
The METRA window or door has not had any seepage of water even with a wind pressure equal to a speed of 111,54 km/h (600Pa).

Air pressure applied  
km/h

**Class achieved**

(0Pa)	(50Pa)	(100Pa)	(150Pa)	(200Pa)	(250Pa)	(300Pa)	(450Pa)	(600Pa)	(900Pa)
0	32,2	45,53	55,77	64,39	72	78,87	96,59	<b>111,54</b>	136,6
1A	2A	3A	4A	5A	6A	7A	8A	<b>9A</b>	E900

Capacity of the window or door to block seepage of water when it is struck by a water flow and there is a pressure difference between the internal and external side.



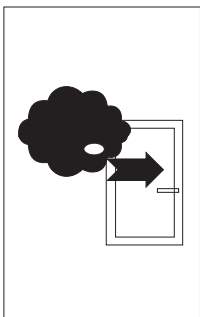
## Air permeability EN 1026 - EN 12207

The METRA window or door was subjected to a wind pressure equal to a speed of 125 km/h (750Pa) and passed the test with positive results.

Air pressure applied  
**Class achieved**

(150Pa)	(300Pa)	(600Pa)	(600Pa)
1	2	3	<b>4</b>

Characteristic of a closed vent to let air pass through when the internal and external pressures are mutually different; the smaller the volume dispersed, the greater the window or door quality.



## Resistance to wind load EN 12211 - EN 12210

The METRA window or door was subjected to a wind pressure more than a speed of 2036 km/h (2000Pa) and passed the test with positive results.

Air pressure applied  
With deflection  
**Class achieved**

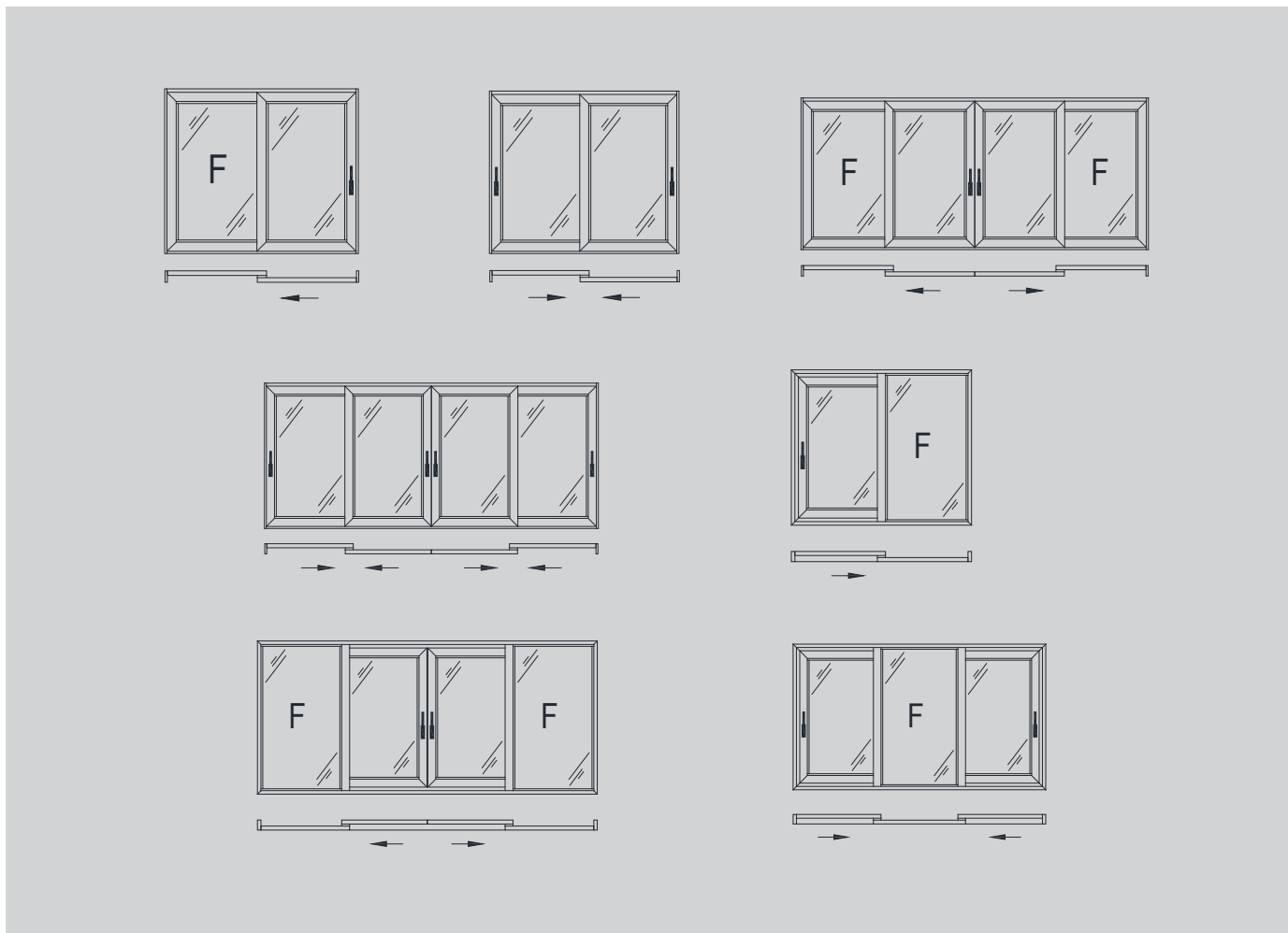
(400Pa)	(800Pa)	(1200Pa)	(1600Pa)	(2000Pa)	(>2000Pa)
A (1/150)		B (1/200)		<b>C (1/300)</b>	
1	2	3	4	<b>5</b>	<b>Exxx</b>


Capacity of a window or door subjected to high pressure and/or suction, such as those caused by wind, to remain within admissible deformation limits and to conserve its initial properties so as to ensure protection and safety to the users.

NC-S 150I  
LIFT & SLIDE



# Opening Typologies



 NC-S 1501  
LIFT & SLIDE



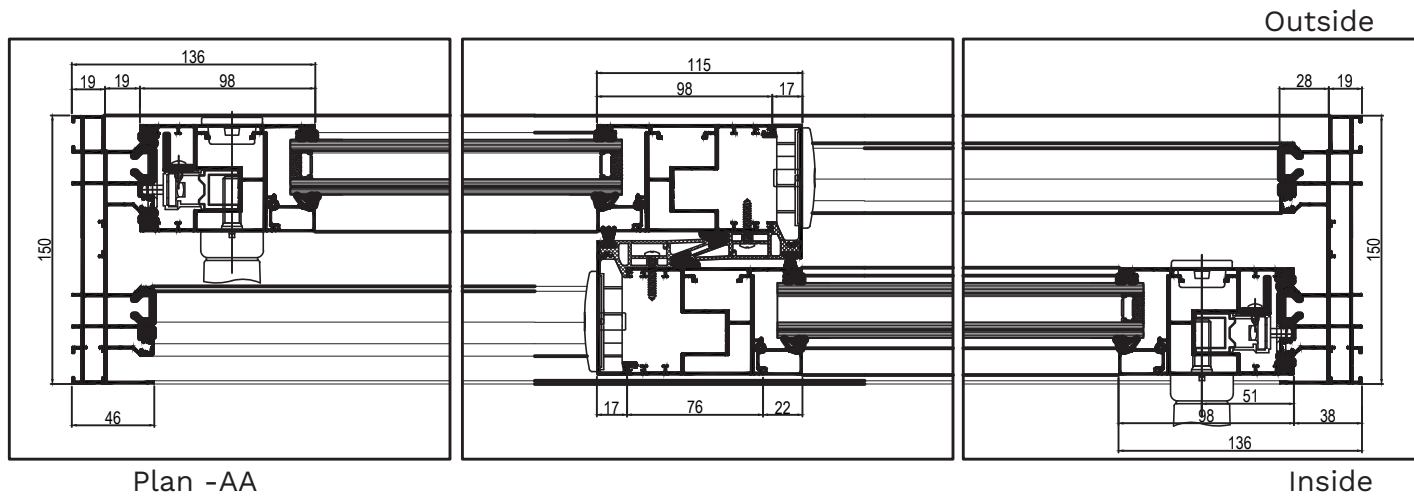
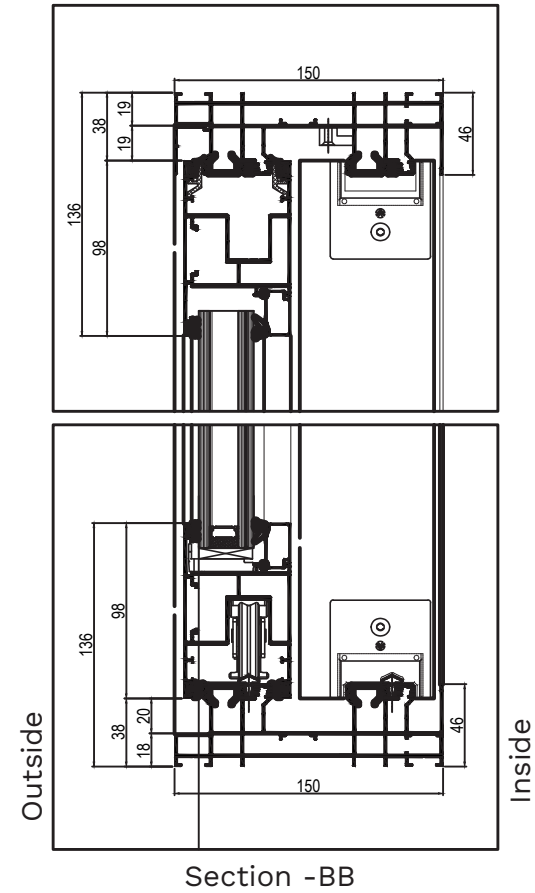
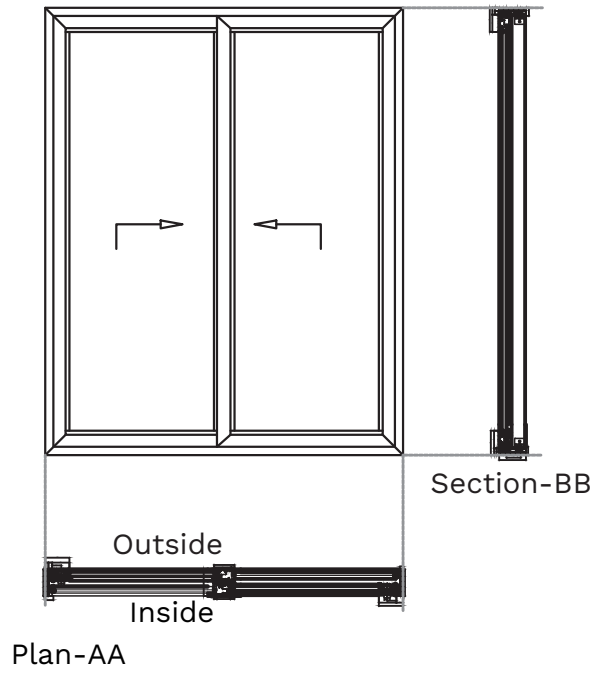
# The METRA Hybrid: Advantages


- 1 Large dimensions and large weights**  
Maximum smoothness and ease of use even for the most challenging dimensions, up to 600 kg.
- 2 Concealed closing**  
Clean and essential, with invisible closing points, it ensures a perfect design.
- 3 Lift unit - comfort close**  
It facilitates the movement and guarantees maximum control and comfort when opening and closing.
- 4 Pull handles**  
The essential original METRA Building design allows easy handling even on large sizes.
- 5 Low sill**  
More space for movement, while respecting design.
- 6 Gaskets**  
The EPDM gaskets ensure extreme tightness and durability. Their design makes them discreet giving space to light.





## Lift & Slide 2 Sliding Sashes

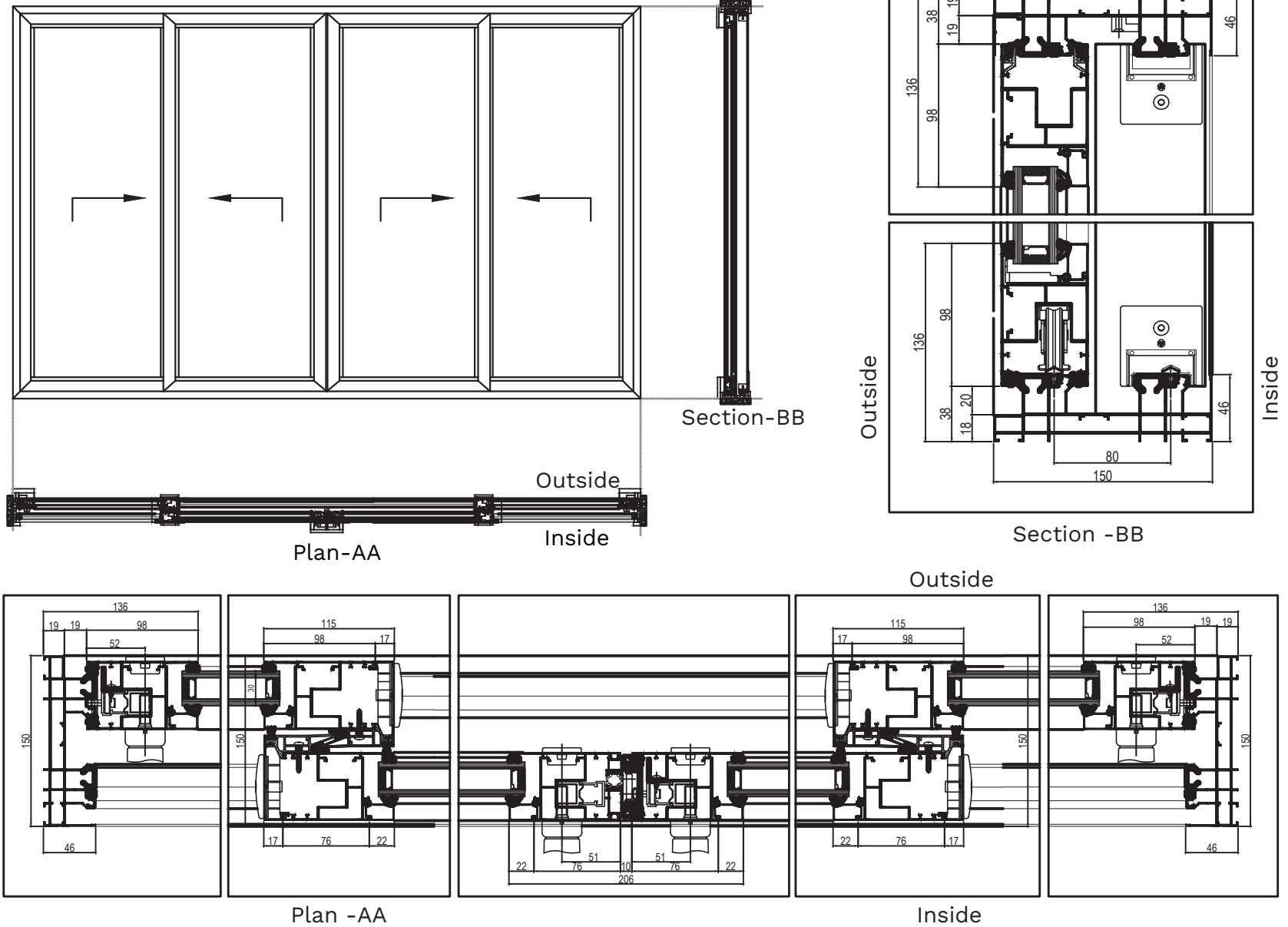


 NC-S 1501  
LIFT & SLIDE





## Lift & Slide 4 Sliding Sashes





NC-S 1501  
LIFT & SLIDE







Under license from Metra Building Systems, Italy

Display available at:  
METRA HYBRID :  
39-40 B IDC, 2nd Flr.  
Main MG Road, Gurugram,  
Haryana- 122 001

For further information, contact:  
Mr. Mridul Shrivastava  
+91 9205 222 605  
Mr. Manish Kwatra  
+91 9205 222 604

[info@metra.in](mailto:info@metra.in)  
[www.metra.in](http://www.metra.in)