



**NC 50 STH**  
Casement windows and doors

[www.metra.it](http://www.metra.it)



**METRA**  
*Italian Style Emotions*



# Casement windows and doors

## NC 50 STH

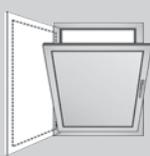
NC 50 STH is an ideal system, very lightweight with great sealing performance. The thermal break enables high thermal insulation and energy saving all within just 50 mm of depth. NC 50 STH can enhance various housing types that require small – medium lighting.



Double side-hung casement



Single side-hung casement



Tilt and turn



Bottom-hung



Horizontal pivot casement



Vertical pivot casement



Top hung casement



Tilt-and-slide

### Advantages

- Wide range of finishes
- Easy maintenance
- High-level design
- Various opening typologies
- Minimal amount of space
- Maximum thermal insulation
- Maximum acoustic insulation

### Technical features

#### Base dimensions:

from 50 to 60 mm

#### Air-water tightness:

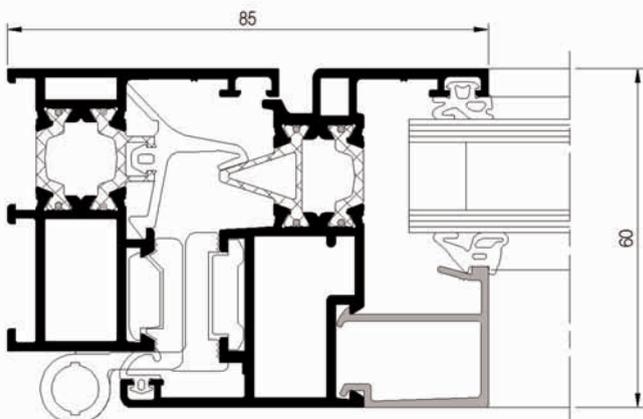
open joint (casement windows and doors);  
double rabbet gasket (entrance doors)

#### Glass thickness:

from 4 to 42 mm

#### Aesthetic lines:

Piana, Sagomata, Classica, Raggiata, Stondata, Ferro,  
A Scomparsa, Tonda,



## Certified performances

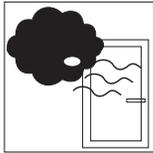


### Water tightness EN 1027 - EN 12208

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

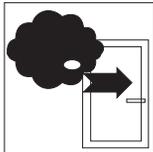


### Air permeability EN 1026 - EN 12207

The METRA window or door was subjected to a wind pressure equal to a speed of 111,54 Km/h (600Pa) and passed the test with positive results.

Air pressure applied Class achieved	(150Pa)	(300Pa)	(600Pa)	(600Pa)
	1	2	3	4

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) non passed the test without damage or permanent deformations.

Air pressure applied With deflection Class achieved	(400Pa)	(800Pa)	(1200Pa)	(1600Pa)	(2000Pa)	(>2000Pa)
	A ( 1/150)		B ( 1/200)		C ( 1/300)	
	1	2	3	4	5	E <sub>xxx</sub>

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.

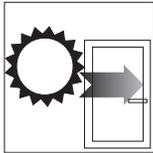


### Soundproofing power EN ISO 140-3, EN ISO 717-1

METRA windows and doors are able to cut out airborne noise from the outside up to 46 dB.

**Up to 46 dB**

Capacity of a window and door to attenuate external noise.



### Thermal transmittance

The METRA window and door comply with the energy saving standards.



\* Windows 1 casement 1230 x 1480 mm; glass: Ug=0.6 W/m<sup>2</sup>K, psi=0.05 W/m<sup>2</sup>K

The heat transmission rate U is the heat flow which goes through the window or door according to m<sup>2</sup> of surface and for each degree of difference in temperature between exterior and interior. The unit of thermic transmission measurement is W/m<sup>2</sup>K.

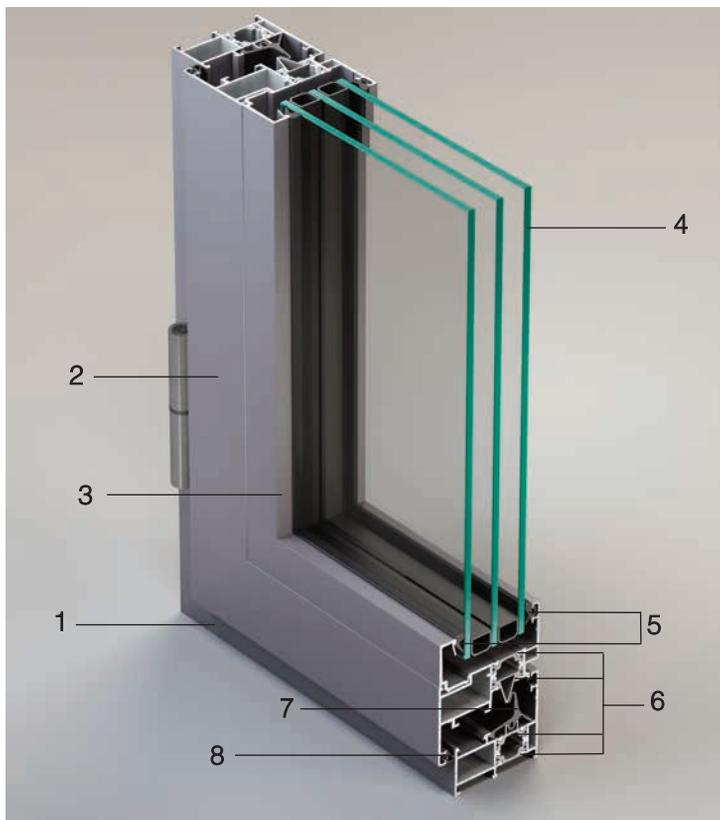


### Burglar resistance EN 1627 - EN 1630

METRA windows and doors effectively resist intruders attempting to get inside.

Resistance class	WK1	WK2	WK3
		WK2	

Capacity of a window and door to resist a violent intrusion attempt following application of a physical force with the help of tools.



## Technology

- 1 - Frame
- 2 - Sash
- 3 - Glazing bead available in different sizes depending on glass thickness
- 4 - Insulating glass with one air space (double glazing) or two air spaces (triple glazing)
- 5 - EPDM glazing gasket
- 6 - Insulating bars made of polyamide 6.6 reinforced with 25% fibreglass
- 7 - "Open joint" central tightness gasket
- 8 - EPDM internal rabbet gasket

Curtain walls

Casement windows and doors

Aluminium-wood windows and doors

Sliding windows and doors

Internal doors

Systems for balconies

Verandas

Shading systems

Photovoltaic applications

Accessories and design complements

Finishes and coatings



**METRA**

METRA S.p.A. Via Stacca, 1 - 25050 Rodengo Saiano (BS) Italy

Tel. +39 030 6819.1 - Fax +39 030 6810363

servizioclienti@metra.it - www.metra.it

METRA uses ecological paper for its documentation  
and low environmental impact printing products.



METRA Documentation  
Brochure  
NC 50 STH - English

Edition: 12/2013