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#### **SMARTIA M9660**

is a hinged, thermally insulated system, designed to meet the requirements of regions with warm climate, offering competitive price combined with considerable thermal insulation performance. These features render SMARTIA M9660 an ideal solution for both new and renovated buildings in private and public projects.

When energy saving meets minimal design.





SMARTIA M9660 provides a variety of options...

in terms of design (Standard and Minimal) and energy solutions (High, Advanced, Standard), that can cover meet the trends and specifications of contemporary architecture.



• Basic system depth 56 mm.

**OF SYSTEM'S CHARACTERISTICS** 

- Available in three energy versions: Standard-Advanced-High.
- Minimal look, thanks to concealed sash of 70,5 mm visible aluminium face width (Phos version).
- Special profiles, available for various entrance doors
- Available in various designs (flat, curved).
- European groove or PVC groove hardware can be applied.
- Certified by the ift Rosenheim institute.





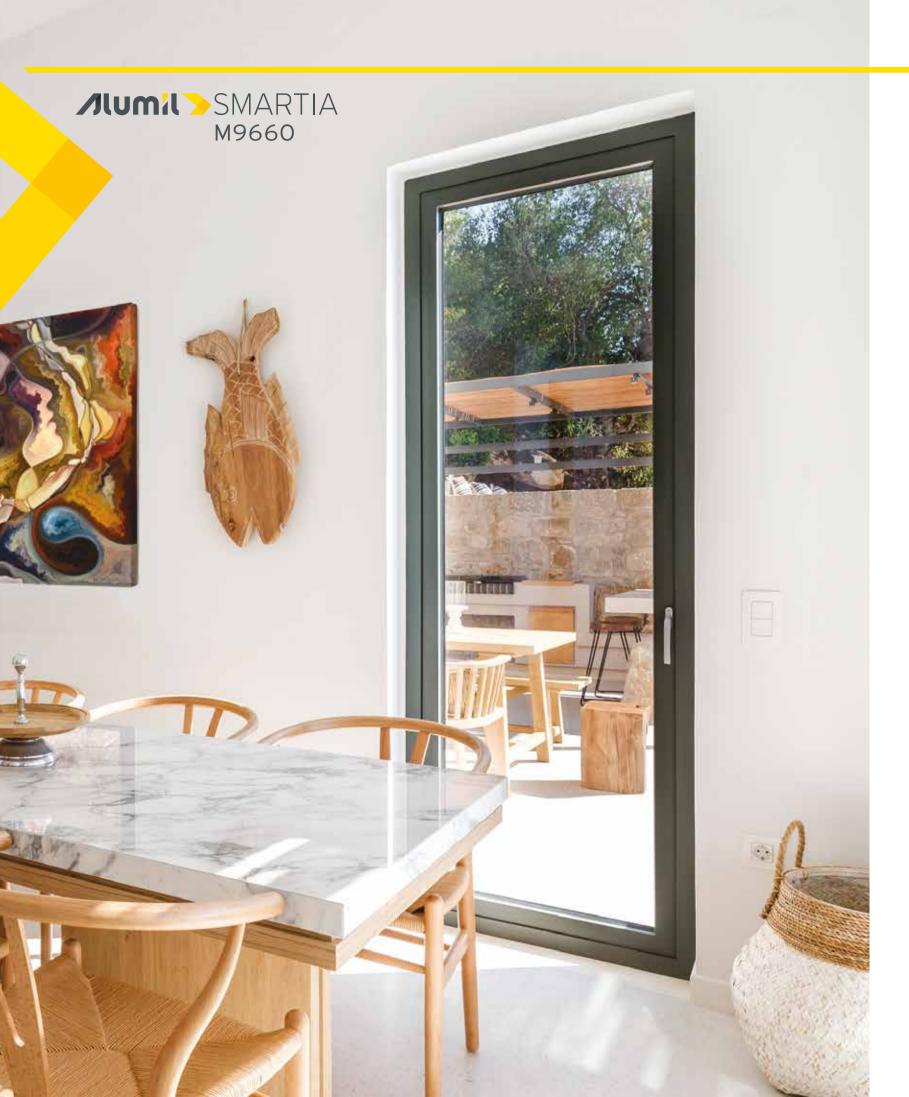
# **TECHNICAL**

# **FEATURES**



VISIBLE ALUMINIUM FACE WIDTH	91,5 mm
FRAME HEIGHT	45/55 mm
FRAME WIDTH	
SASH HEIGHT	63,5/74 mm
SASH WIDTH	63,5 mm
SASH WEIGHT	UP TO 180 kg
GLAZING	FROM 4 UP TO 47 mm
INSULATION	POLYAMIDES 24MM WIDTH, NRG BAR, PE

POLYAMIDES 24MM WIDTH, NRG BAR, PE INSULATION FOAM



# **VARIETY**

## OF OPTIONS

#### **Energy versions**

By choosing among different accessories, SMARTIA M9660 provides three different energy versions, satisfying every demand in terms of thermal efficiency.

#### STANDARD



- 1. Multi chamber EPDM central gasket
- 2. One chamber EPDM wedge gasket

#### ADVANCED



- 1. Multi chamber EPDM central gasket
- 2. One chamber EPDM wedge gasket
- 3. PE Insulation Foam

#### HI



- 1. Multi chamber EPDM central gasket
- 2. One chamber EPDM wedge gasket
- 3. PE Insulation Foam
- 4. Energy Bar



## **ATTENTION**

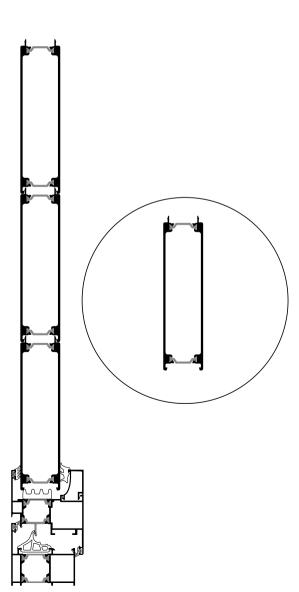
## TO DETAIL

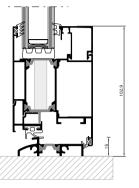
# Secondary entrance doors

System's flexibility offers solutions in typologies that are mainly used as secondary entrance doors.

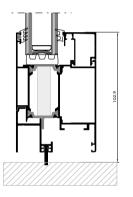
Pedestrian doors are available with three bottom configurations:

- Low threshold of 15mm height, which is in line with the legislation for Persons with Disabilities
- Without threshold
- Kickplate

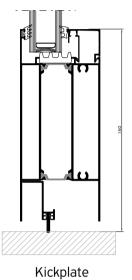




Low Threshold



Without Threshold



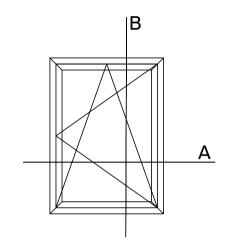
## Shutter Panel Infill

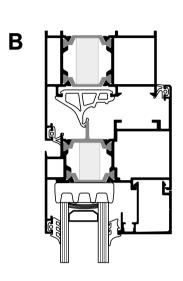
Instead of using aluminium panel as infill, SMARTIA M9660 offers an alternative option, providing a thermal break shutter profile, which contributes significantly to the total thermal efficiency.

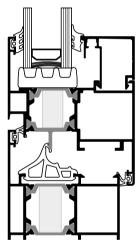


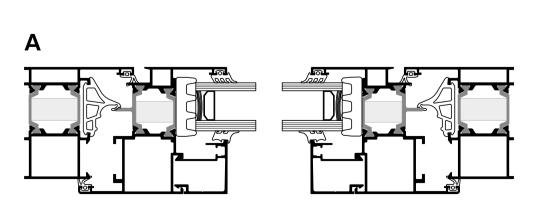
1 Sash

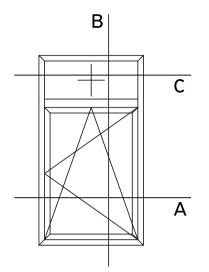
1 Sash / Fixed light

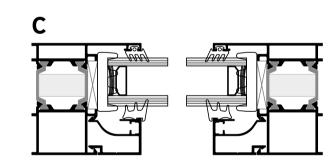


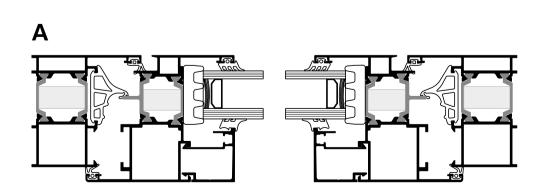


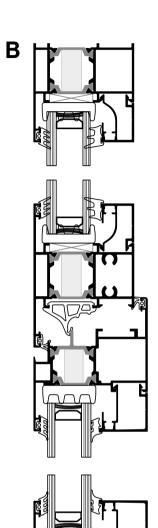








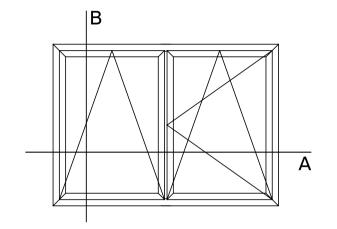


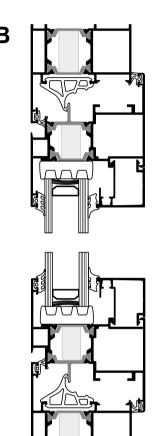


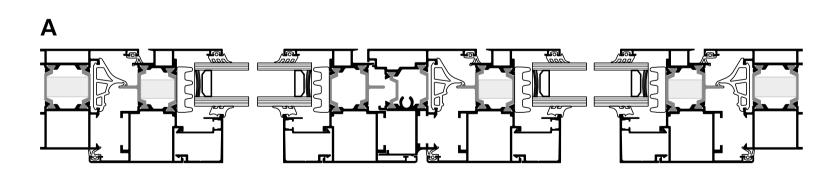


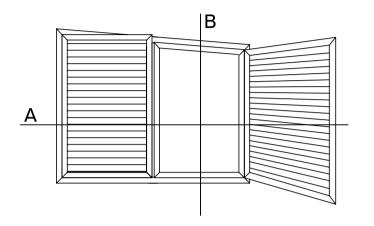
2 Sashes

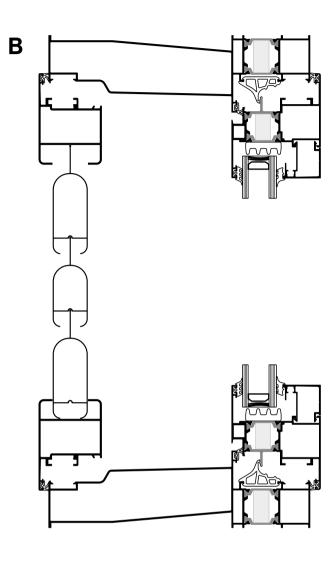


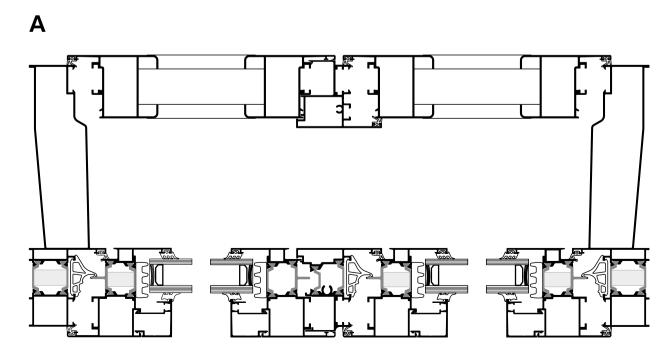








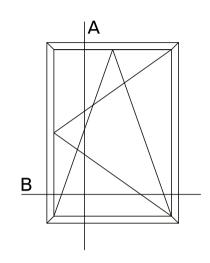


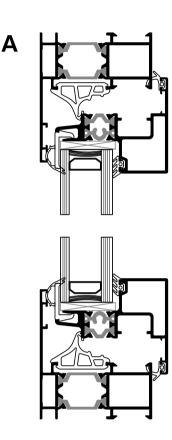


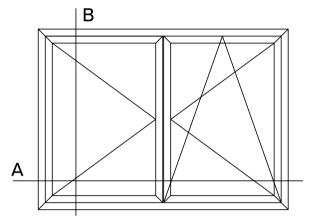


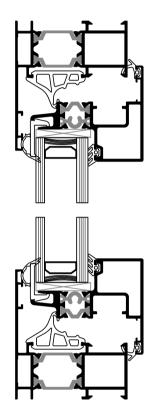
1 Sash / Hi

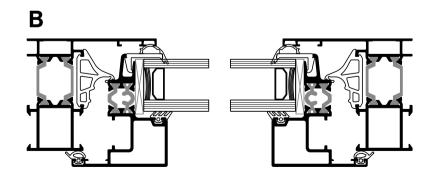


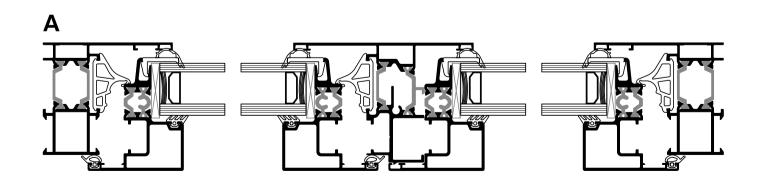








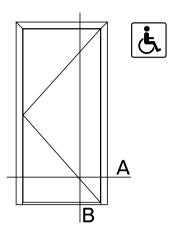


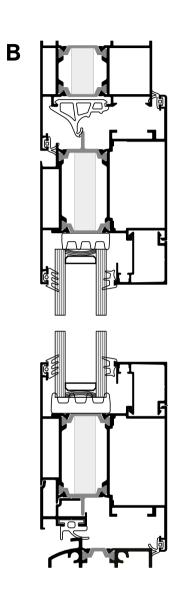


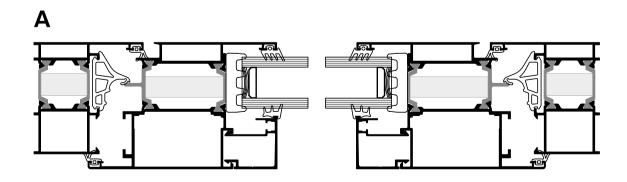
## **∕/lumil>**SMARTIA M9660

## **SECONDARY ENTRANCE DOORS**

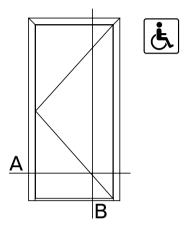
1 Sash / Inwards

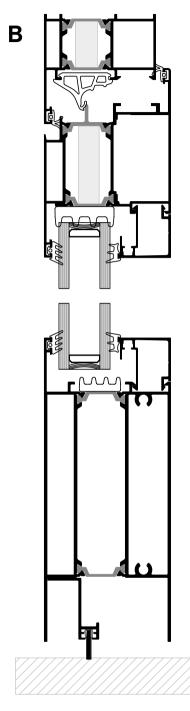


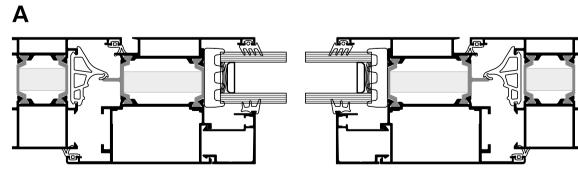




# 1 Sash / Inwards / Kickplate



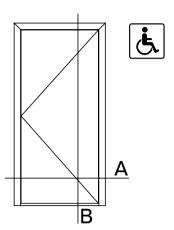


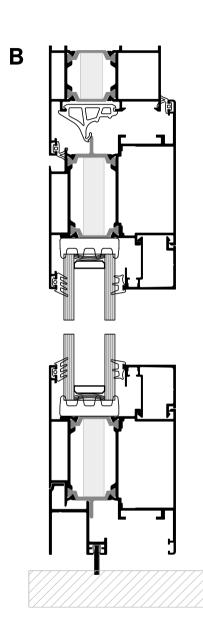


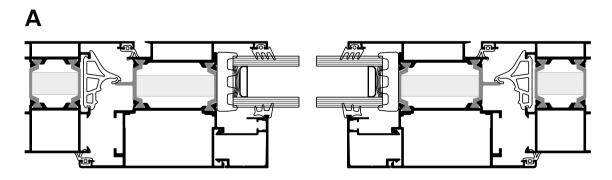
## **∕/lumil>**SMARTIA M9660

### **SECONDARY ENTRANCE DOORS**

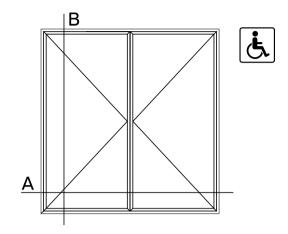
1 Sash / Inwards

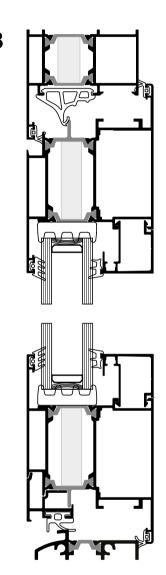


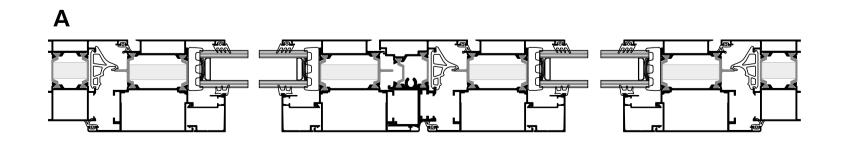




# 2 Sashes / Inwards



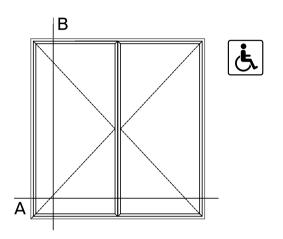


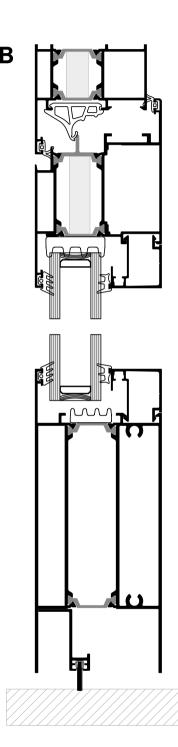


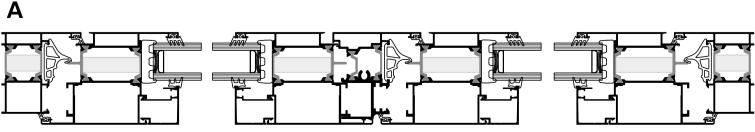
## **∕NUmil>**SMARTIA M9660

### **SECONDARY ENTRANCE DOORS**

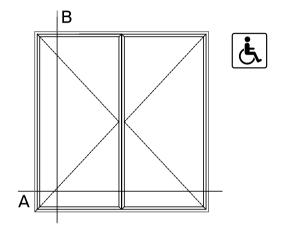
2 Sashes / Inwards / Kickplate

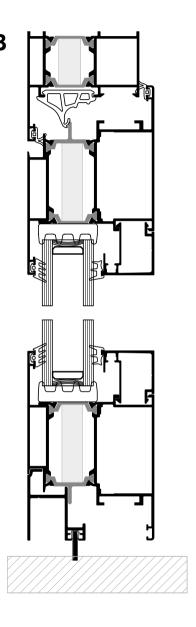


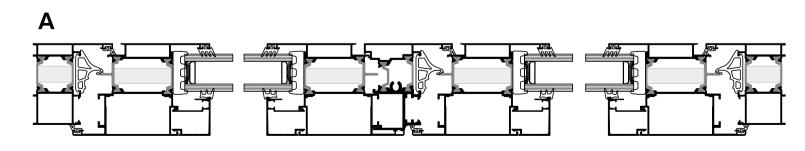




# 2 Sashes / Inwards



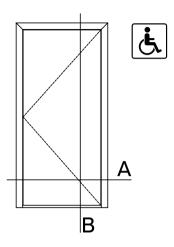


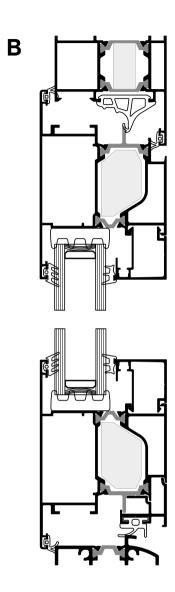


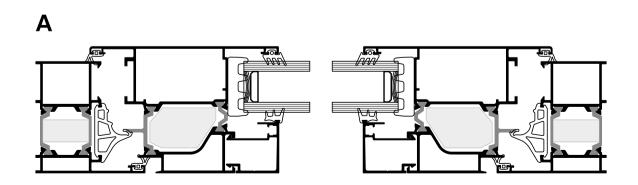
## **∕NUmil>**SMARTIA M9660

### **SECONDARY ENTRANCE DOORS**

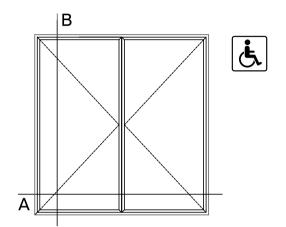
1 Sash / Outwards

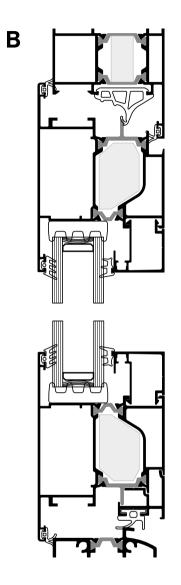


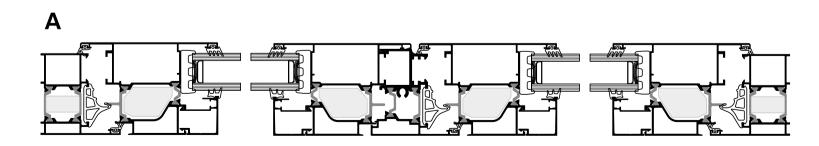




# 2 Sashes / Outwards







#### **∕NUM**il>SMARTIA M9660 PHOS

## WHEN THE THINNEST SIGHTLINE BECOMES A DEMAND

SMARTIA M9660 PHOS offers a competitive alternative option in concealed sash typologies.

Thanks to its 70,5 mm visible sightline, natural light is maximized, providing a totally minimal look in the building.

Moreover, SMARTIA M9660 PHOS provides a holistic approach in projects that require standard and concealed design.



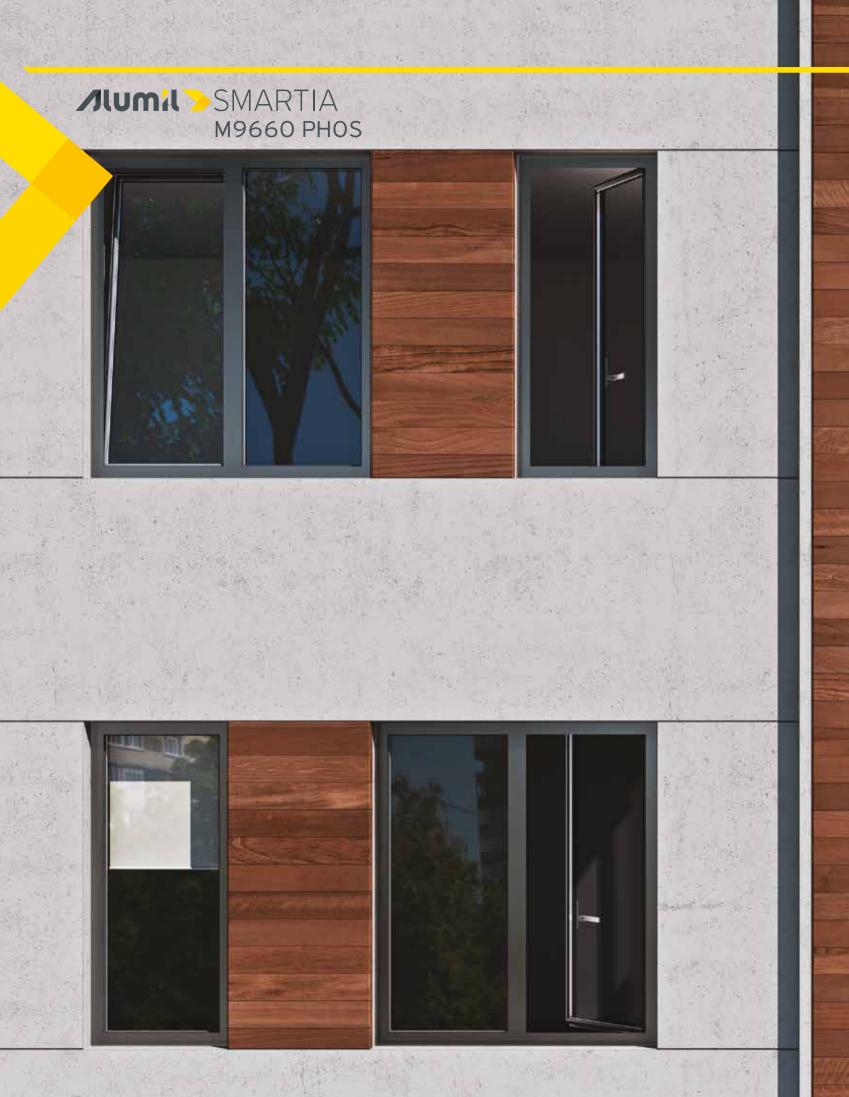
The system is available in two versions:



M9660 PHOS-Standard Non-thermal break sash



M9660 PHOS-High Thermal break sash



# TECHNICAL FEATURES

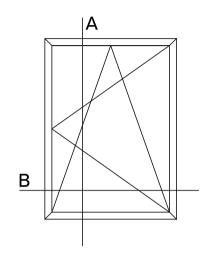


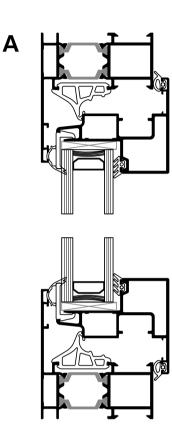
VISIBLE ALUMINIUM FACE WIDTH	70,5 mm
FRAME HEIGHT	65 mm
FRAME WIDTH	56 mm
SASH HEIGHT	48 mm
SASH WIDTH	
SASH WEIGHT	UP TO 180 kg
GLAZING	
INSULATION	POLYAMIDES 14MM WIDTH

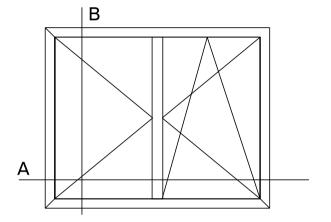


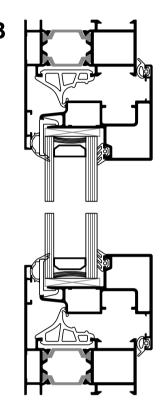
1 Sash / Standard

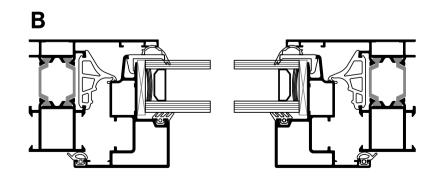


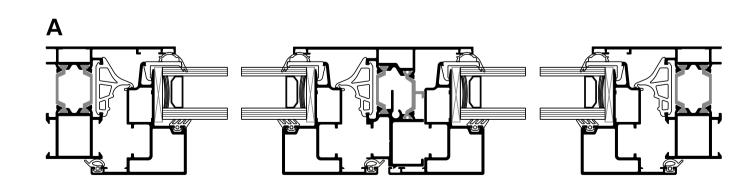












//lumil > SMARTIA MD9660

**ENTRANCE** 

Thanks to its flat design, it is a magnificent

**DOORS** 

Main entrance doors (flush) with MD9660

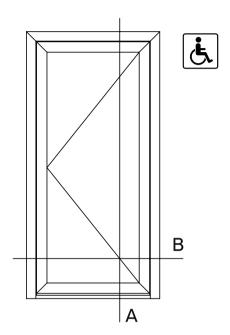
SMARTIA M9660, offers competitive entrance doors, maintaining at the same time, the quality and credibility of an advanced



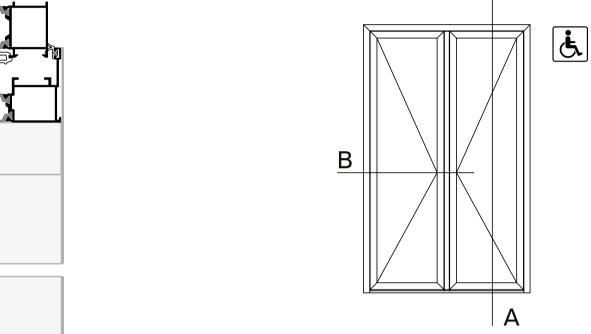


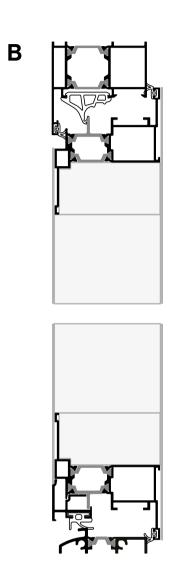
1 Sash / Inwards

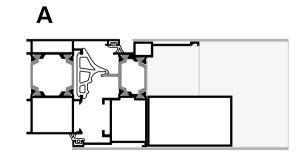










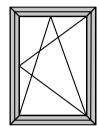




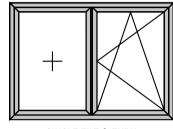


# Applications

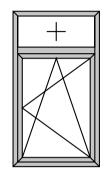
### >SMARTIA M9660



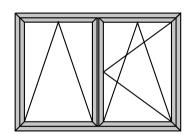
SINGLE TILT &
TURN CASEMENT



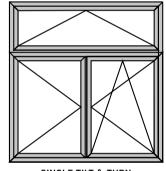
SINGLE TILT & TURN
WITH FIXED LIGHT



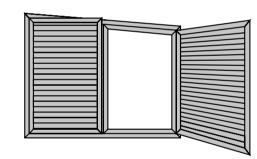
SINGLE TILT & TURN CASEMENT WITH FUNLIGHT



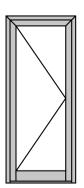
SINGLE TILT & TURN WITH SIDE - HUNG CASEMENT



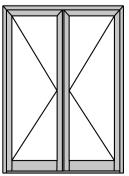
SINGLE TILT & TURN
WITH SIDE - HUNG AND BOTTOM
HUNG CASEMENT



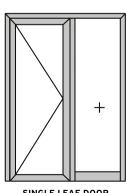
SINGLE TILT & TURN WITH SIDE - HUNG CASEMENT & WITH SHUTTER



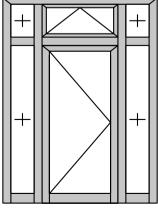
SINGLE LEAF DOOR



DOUBLE LEAF DOOR

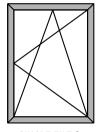


SINGLE LEAF DOOR WITH FIXED LIGHT

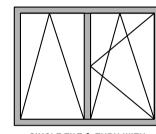


SINGLE LEAF DOOR WITH FANLIGHT AND FIXED LIGHTS

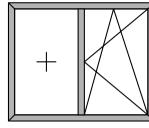
#### >SMARTIA M9660 PHOS



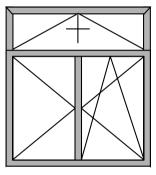
SINGLE TILT &
TURN CASEMENT



SINGLE TILT & TURN WITH SIDE - HUNG CASEMENT

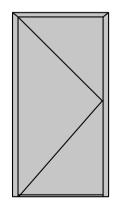


SINGLE TILT & TURN
WITH FIXED LIGHT

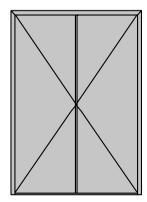


SINGLE TILT & TURN WITH
SIDE - HUNG AND BOTTOM HUNG
CASEMENT

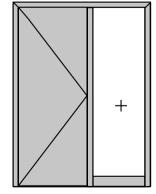
#### >SMARTIA MD9660



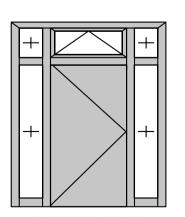
SINGLE LEAF DOOR WITH INSULATION PANEL



DOUBLE LEAF DOOR
WITH INSULATION PANEL



SINGLE LEAF DOOR WITH INSULATION PANEL AND FIXED LIGHT



SINGLE TILT &
TURN CASEMENT

WITH FUNLIGHT

SINGLE LEAF DOOR WITH INSULATION PANEL, FANLIGHT AND FIXED LIGHTS

# Table of performance



#### CERTIFICATION

#### CLASSIFICATION



**WATER TIGHTNESS** EN 12208



**AIR PERMEABILITY** EN 12207



**WIND LOAD RESISTANCE**MAX TEST PRESSURE



EN 12210



WIND LOAD RESISTANCE TO FRONTAL DEFLECTION EN 12210



**BURGLAR RESISTANCE** 

EN 1627 -1630



SOUND REDUCTION EN ISO 140-3

1A	2A	3A	4A	5A	6A	7A	8A	9A	E1650
(O Pa)	(50 Pa)	(100 Pa)	(150 Pa)	(200 Pa)	(250 Pa)	(300 Pa)	(450 Pa)	(600 Pa)	(1650 Pa)
	1		2			3		4	
	1		2		3	4	4	5	
(4	100 Pa)	(80	00 Pa)	(12	00 Pa)	(160	O Pa)	(2000	) Pa)
	A				В			C	
	/150)				/200)			(300)	
\= 1	, 130,			(= 1/	200)		(= 1/	300,	
	RC 1				RC 2			RC	:3
									-

Rw (C;Ctr) = 45 (-1, -8) dB depending from the glazing type

THERMAL PERFORMANCE	DIMENSIONS IN MM (W x H)	$U_w$ in W/m <sup>2</sup> K $(U_g = 0,6)$	$\mathbf{U}_{w} \text{ in W/m}^{2} \text{ K}$ $(\mathbf{U}_{g} = 0.8)$	$U_w \text{ in W/m}^2 K$ $(U_g = 1,0)$
1 SASHES / HI	1000 x 2200	1,09	1,24	1,38
2 SASHES/HI	1500 x 2200	1,17	1,31	1.46
1 SASHES / ADVANCED	1000 x 2200	1,18	1,32	1,47
2 SASHES / ADVANCED	1500 x 2200	1,26	1,40	1,55
1 SASH/STANDARD	1000 x 2200	1,21	1,35	1,49
2 SASHES / STANDARD	1500 x 2200	1,30	1,44	1,60





#### CERTIFICATION

#### CLASSIFICATION



WATER TIGHTNESS FN 12208



AIR PERMEABILITY

EN 12207



WIND LOAD RESISTANO MAX TEST PRESSURE

EN 12210



WIND LOAD RESISTANCE TO FRONTAL DEFLECTION EN 12210

1 A (O Pa)	2A (50 Pa)	3A (100 Pa)	4A (150 Pa)	<b>5A</b> (200 Pa)	6A (250 Pa)	<b>7A</b> (300 Pa)	8A (450 Pa)	9A (600 Pa)
	1		2		3		4	
(40	1 00 Pa)	2 (800 F	Pa)	<b>3</b> (1200 Pa	) (	4 1600 Pa)		5 00 Pa)
	<b>A</b> 150)			B (≤ I/200)		(:	C ≤ I/300)	

THERMAL PERFORMANCE	DIMENSIONS IN MM (W x H)	$U_w$ in W/m <sup>2</sup> K $(U_g = 0.9)$	$U_W$ in W/m <sup>2</sup> K $(U_g = 1,1)$	$U_w$ in W/m <sup>2</sup> K $(U_g = 1,3)$
1 SASHES / HI	1000 x 2200	1,31	1,47	1,63
2 SASHES / HI	1500 x 2200	1,36	1,52	1,68
1 SASH / STANDARD	1000 x 2200	1,45	1,61	1,77
2 SASHES / STANDARD	1500 x 2200	1,53	1,69	1,84

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M9660



M9660 PHOS



MD9660



#### ALUMIL MIDDLE EAST DMCC

MAZAYA BUSINESS AVENUE BB1 29TH FLOOR, OFFICE #2907 JUMEIRAH LAKES TOWERS, DUBAI, UAE

TEL.: +971 4 4425930 FAX: +971 4 4416528

EMAIL: marketing.uae@alumil.com

www.alumil.ae

#### **ALUMIL HEADQUARTERS**

KILKIS INDUSTRIAL AREA KILKIS - GR 61100

TEL.: +30 23410 79300 FAX.: +30 23410 71988 E-MAIL: info@alumil.com





















