

ELVIAL

elvial

W89 PHI²



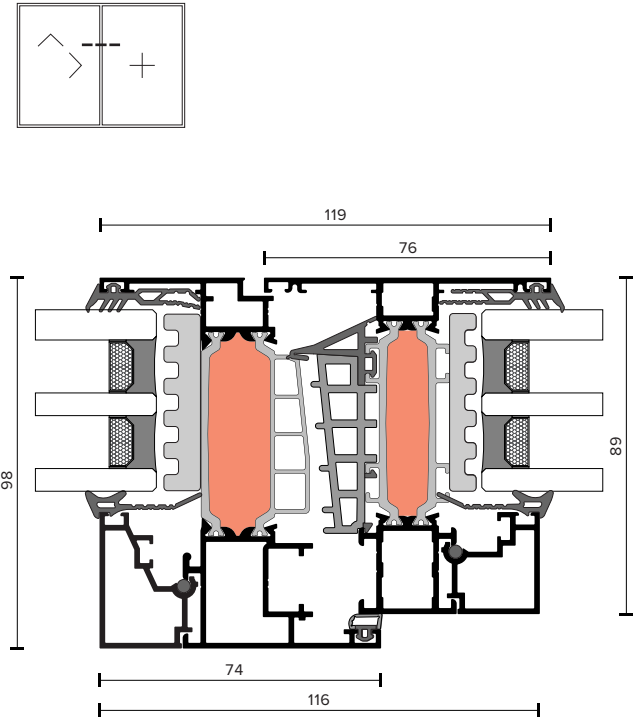
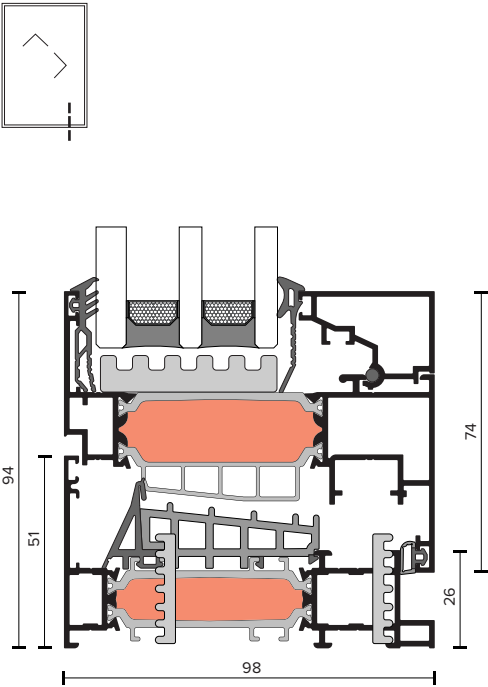
OPENING SYSTEM

The W89 PHI² system is a quality building solution that ensures minimal values, superior window energy performance and maximum heat recovery rates.

ELVIAL

W89 PHI²

A passive house is a contemporary construction option that requires optimal energy efficiency and superior performance from all functional elements.



INWARD
OPENING
CONSTRUCTIONS



Single sash fixed



Double sash fixed



Single sash fixed with skylight



Double sash opening



Single sash opening



Double sash tilt & turn



Single sash tilt & turn



Single sash tilt & turn with fixed parts using contractions and expansions

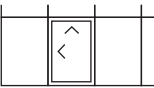


Single sash titl & turn with fixed part

OUTWARD
OPENING
CONSTRUCTIONS



Single sash projected



Special typology window wall

TECHNOLOGY

THERMAL INSULATION

- 154mm insulating bars
- Co-extruded gasket
- ELVIAL I²_ Innovative insulation technology
- Foam **insulating** profile

SEALING SYSTEM

- Optimal 3-level waterproofing with specially designed **EPDM** gaskets
- EPDM** gasket corners
- EPDM** end caps for **adjoining profile**

EXTRA FEATURES

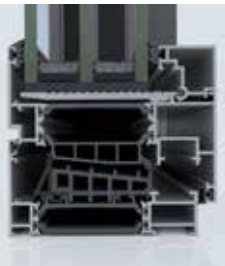
HANDLES FOR UNIQUE STYLE



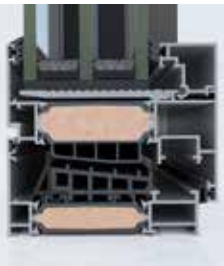
COLORS



ENERGY LEVELS

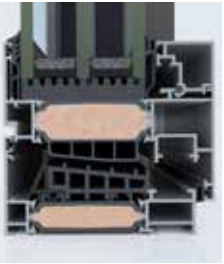


Level **1**
*Uf: **≥1.7** W/m²K



Level **2**
*Uf: **≥0.83** W/m²K

*Energy performances concern the specific sash-frame combination



Level **3**
*Uf: **≥0.72** W/m²K

IDENTITY

DESIGN

PROPERTIES

PERFORMANCE

ENERGY

COMFORT

Frame Depth		89	mm
Min Face Height Frame - Sash		89	mm
Min Face Height Middle Mullion		154	mm

Max Sash Height		2.800	mm
Max Sash Width		1.600	mm
Max Sash Weight		200	kg
Max Glass Thickness		83	mm

ELVIAL W89 PHI² offers you endless solutions in both European groove mechanism [**CE**] and Multilock groove mechanism [**ML**]

Thermal Insulation Uf	EN ISO 10077-2	≥0.62 W/m²K
Air Permeability	EN 12207	Class 4 [600Pa]
Watertightness	EN 12208	E1050 [1.050Pa]
Resistance to Wind Load	EN 12210	C4 / B4 [1.600Pa]

SEE LIFE FROM A DIFFERENT
VIEW THROUGH ELVIAL'S
ALUMINIUM SYSTEMS

**DISCOVER OUR INNOVATIVE
TECHNOLOGIES**

ELVIAL I² INSULATION TECHNOLOGY
ELVIAL PRE-ANODIZING 2IN1

**DISCOVER MORE ALUMINIUM
SYSTEMS**

ICONIC W77 AI²
ICONIC W77BS AI²
ICONIC W77ST AI²

ESSENCE W67 HI²
ESSENCE W67BS HI²
ESSENCE W67ST HI²

ELVIAL W92 HI² AW

ESSENCE SL60 HI²
ESSENCE SL60 HI² FLAT EDITION
ELVIAL SL60 HI² CLASSIC
ESSENCE SL50 HI² FLAT EDITION
ELVIAL SL50 HI² CLASSIC

ELVIAL SL46 SI² CLASSIC
ELVIAL SL46 SI² FLAT EDITION
ELVIAL SL46 SI²_MD

ICONIC D77 AI²

ESSENCE SD55
ESSENCE CLADDING CL180