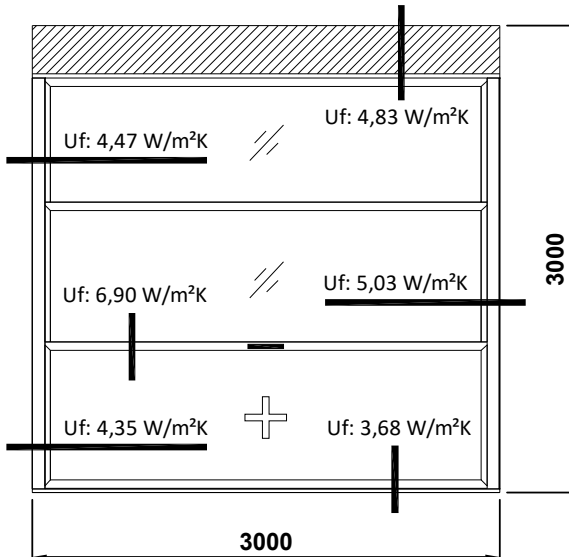


## GLASS + PROFILE TOTAL THERMAL INSULATION VALUES (Uw)

► These are the thermal calculation results created through the heat transfer analysis software with the - Insulated Guillotine system.



(Uf INTERVAL-Uf INTERVALO) : 3,68 - 6,90 W/m²K

$$U_w = \frac{(U_g A_g + U_f A_f + \Psi_g L_g)}{(A_g + A_f)}$$

Calculation of total thermal transmittance value

$$\Psi_{A,B} = \frac{\Phi}{\Delta T} - U_{g1} \cdot b_{g1} - U_f \cdot b_f - U_{g2} \cdot b_{g2}$$

Calculation of thermal loss coefficient

### Definitions / Definiciones

U frame (Uf) :

Thermal transmittance value of the guillotine system (profile section only without glass)

U glass (Ug) : Thermal transmittance value of the glass

U window (Uw) :

Total heat transfer value of the guillotine system, including glass

### Uw THERMAL CALCULATION RESULTS ACCORDING TO THE GLASS Resultados del cálculo térmico según el vidrio

Uglass (Thermal Transmittance Value Of Glass)	U window (Ebat/Dimension: 3000mm x 3000mm) (Total Thermal Transmittance Value Of The Casement With Glass)
Ug: 1,1 W/m²K	2,36 W/m²K
Ug: 1,3 W/m²K	2,50 W/m²K
Ug: 1,6 W/m²K	2,70 W/m²K
Ug: 2,0 W/m²K	2,98 W/m²K

### / Thermal Calculation Conditio

/ Inside temperature : +22 °C - Temperatura interior: +22 °C

/ Inside air relative humidity : %50 - Humedad relativa del aire interior: %50

/ Outside temperature : - 10 °C - Temperatura exterior: - 10 °C

/ Inside-outside air temperatue difference : 32 °C - Diferencia de temperatura del aire interior-exterior: 32 °C

/ Dew-point temperature : 11,1 °C - Temperatura del punto de rocío: 11,1 °C

/ Spacer type : Standard - Tipo de espaciador: Estándar

/ Glass thickness: 4mm + 16mm HB + 4mm [24mm] - Espesor del vidrio: 4 mm + 16 mm HB + 4 mm [24 mm]

### / Thermal Calculation Standards - Normas de cálculo térmico

EN ISO 13788:2012 Hygrothermal performance of building components and building elements Internal surface temperature to avoid critical surface humidity and interstitial condensation

EN ISO 10077-1:2006 Thermal performance of windows, doors and shutters - Calculation of thermal transmittance

EN ISO 10077-2:2017 Thermal performance of windows, doors and shutters - Calculation of thermal transmittance

EN ISO 6946:1996 Building components and building elements Thermal resistance and thermal transmittance

EN ISO 10211:2007 Thermal bridges in building construction Heat flows and surface temperatures detailed calculations