

Certificate

Certified Passive House Component

for cool, temperate climates; valid until 31.12.2021

Passive House Institute
Dr. Wolfgang Feist
64283 Darmstadt
GERMANY

Category: **Roller shutter**
 Manufacturer: **HELLA Sonnen- + Wetterschutztech. GmbH**
9913 Abfaltersbach, AUSTRIA
 Product name: **TRAV®frame passiv M_rol-IS**

The certification is based on a standard
Passive House frame.

This certificate was awarded based on the following criteria:

The installed window is calculated with the roller shutter box
at the top and guide rails on both sides.
The heat losses are determined with $U_g = 0.70 \text{ W}/(\text{m}^2\text{K})$,
for window dimensions of $1.23 \text{ m} * 1.48 \text{ m}$ and with

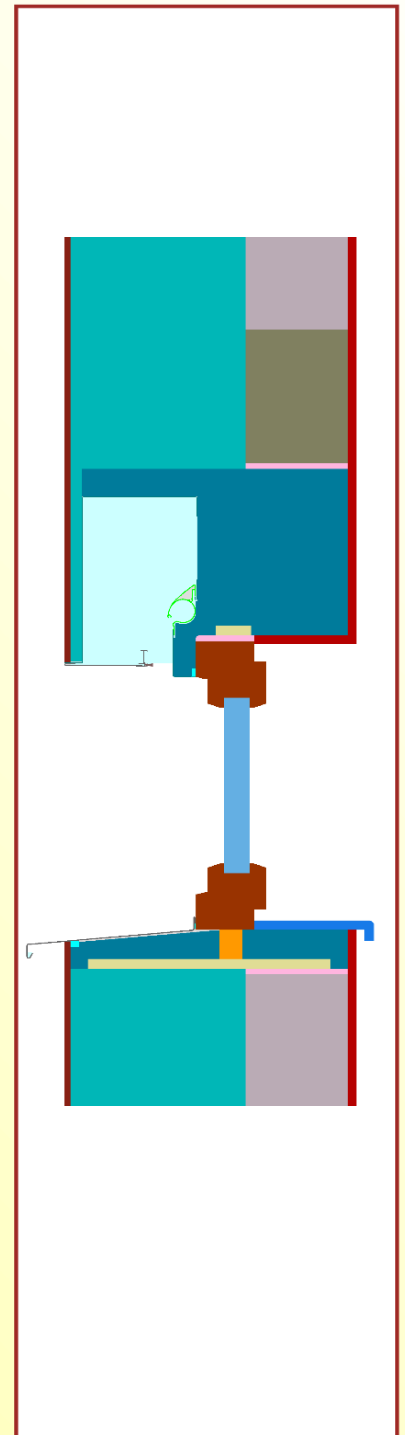
$$U_w = 0.79 \text{ W}/(\text{m}^2\text{K})$$

$$U_{W,\text{installed}} = 0.85 \text{ W}/(\text{m}^2\text{K}) \leq 0.85 \text{ W}/(\text{m}^2\text{K})$$

This certificate was awarded based

$$f_{Rsi} = 0.25 \geq 0,70$$

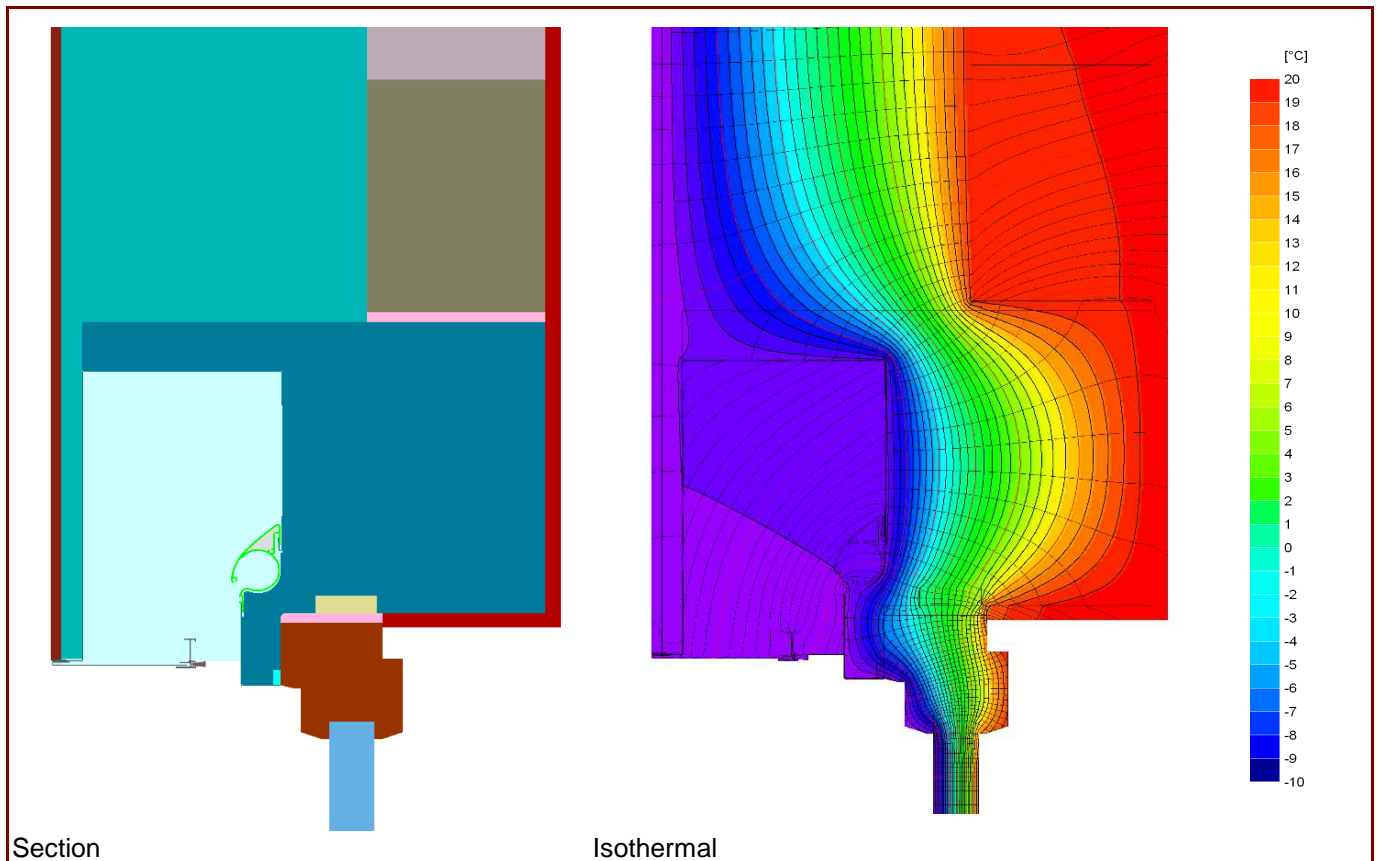
For further information, please see the data sheet



Data Sheet HELLA Sonnen- und Wetterschutztechnik GmbH, TRAV@frame passiv M_rol-IS

Manufacturer HELLA Sonnen- und Wetterschutztechnik GmbH
 Abfaltersbach 125, 9913 Abfaltersbach, AUSTRIA
 Tel.: +43 4846 6555 0
 Email: office@hella.info, www.hella.info

Window standard Passive House frame



Description

Insulated window reveal system ($\lambda = 0,031 \text{ W}/(\text{mK})$) and roller shutter including insect protection screen.

Thermal data for the window frame

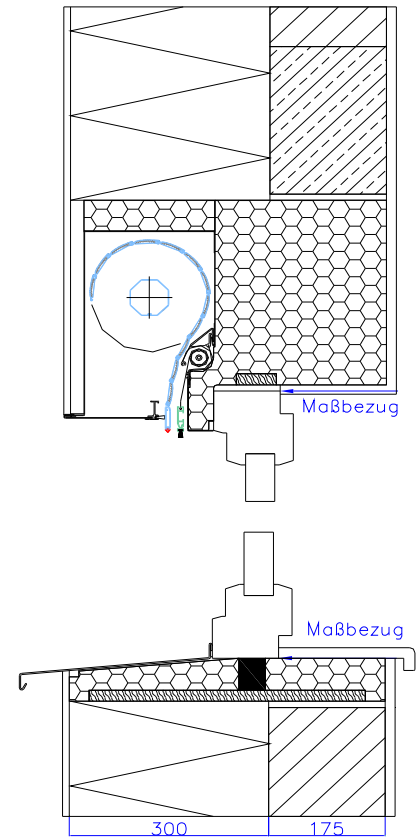
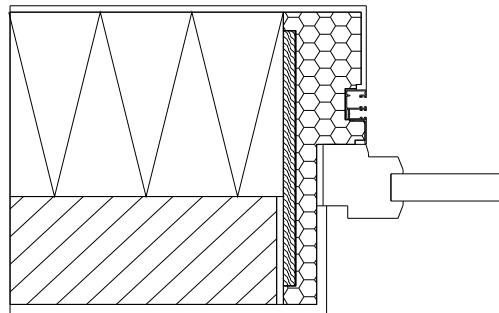
	U_f -value [W/(m ² K)]	Width [mm]	Ψ_g [W/(mK)]	$f_{Rsi=0.25}$ [-]
spacer			SuperSpacer Tri-Seal*	
bottom	0.80	120	0.026	0.72
side/top	0.80	120	0.026	

* Spacers of lower thermal quality lead to higher thermal losses and lower glass edge temperatures.

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certified Installation

Massivwand WDVS (300 mm WLG 035)
with a standard Passive House frame



Installation based thermal bridge $\Psi_{\text{instal.}}$ in Passive House suitable wall

		EIFS (300 mm)
Position		
bottom	[W/(mK)]	0.030
top	[W/(mK)]	0.029
side	[W/(mK)]	0.008
$U_{W,\text{instal.}}$	[W/(m ² K)]	0.85

Explanatory notes

The window U-values were calculated based on a 1.23 m by 1.48 m window $U_g = 0.70 \text{ W}/(\text{m}^2\text{K})$. If better glazing is used, the window U-values decrease. The influence of a ceiling connection instead of a concrete lintel above the window is negligible as long as the EIFS is not weakened.

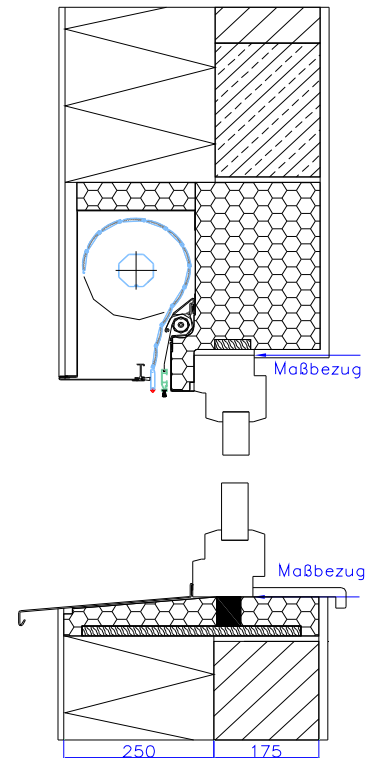
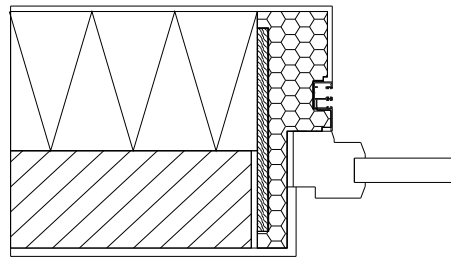
Dimensions refer to the outer edge of the window frame

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additional installation situations

EIFS (250 mm WL 035)

with a standard Passive House frame



$\Psi_{\text{instal. bottom}}$	= 0.040 W/(mK)
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$\Psi_{\text{instal. top}}$	= 0.035 W/(mK)
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$\Psi_{\text{instal. side}}$	= 0.013 W/(mK)
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$U_{W, \text{instal.}}$	= 0.87 W/(m ² K) *
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* not certified.

This installation detail does not fulfill the criteria. The heat losses are higher, if the window frame is situated towards the masonry rather than in the insulation layer. These losses have to be compensated for elsewhere.