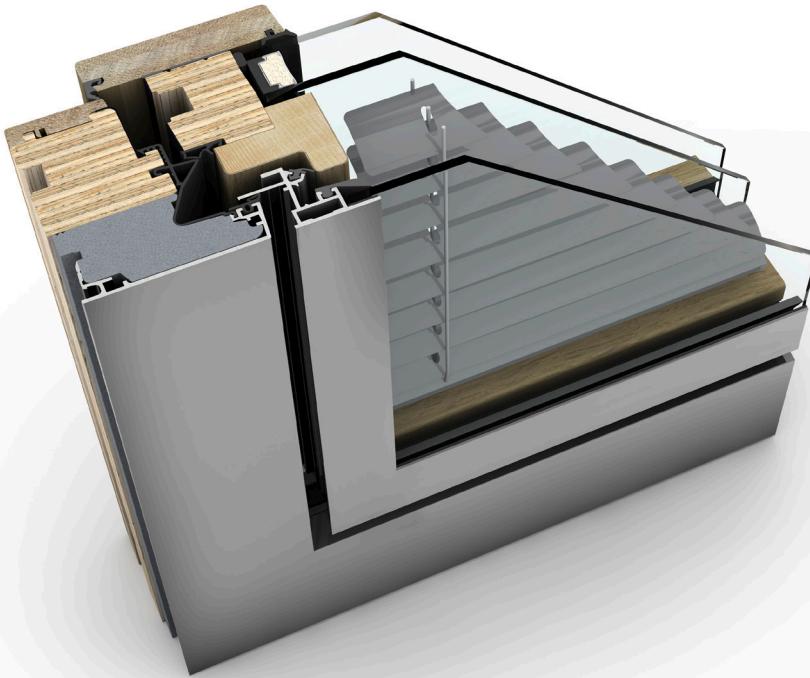




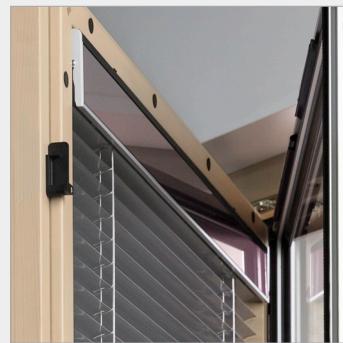
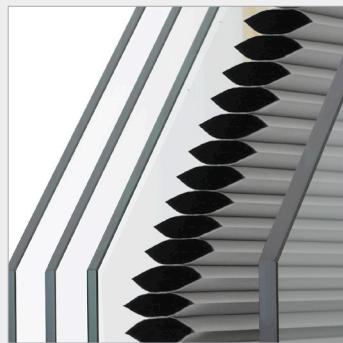
# HV 450 TIMBER/ALUMINIUM WINDOW WITH INTEGRATED BLINDS



## PROPERTIES

	<b>Thermal insulation</b>	$U_w$ as low as 0.62 W/(m²K)
	<b>Sound reduction</b>	up to 46 dB
	<b>Security</b>	RC1N, RC2
	<b>Locking</b>	concealed
	<b>Construction depth</b>	85 mm

- I-tec Glazing**
- I-tec Shading**
- I-tec Core**
- I-tec SmartWindow**

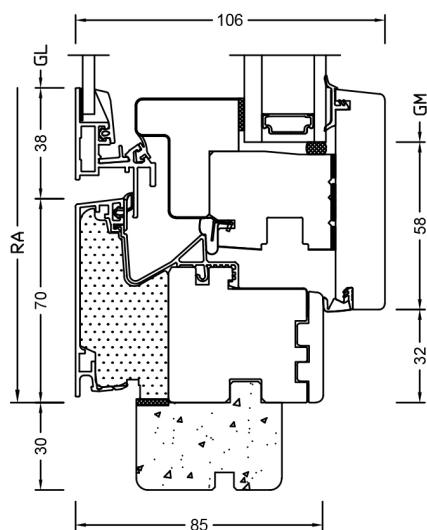


### HV 450

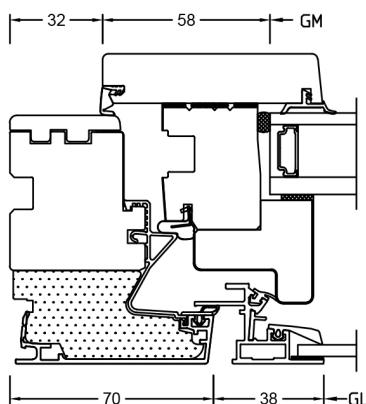
The completely flush transition from frame and sash as well as the integrated sun protection between the panes makes HV 450 one system. Blinds, Venetian blinds or Duette® are protected from dirt through the integrated installation which means 4 x more protection in one window with the perfect sun and privacy protection, thermal insulation and sound reduction. I-tec shading works fully energy self-sufficiently and also offers several other useful functions. Convenient functionality is also available with I-tec Smart Window.

**Sections**

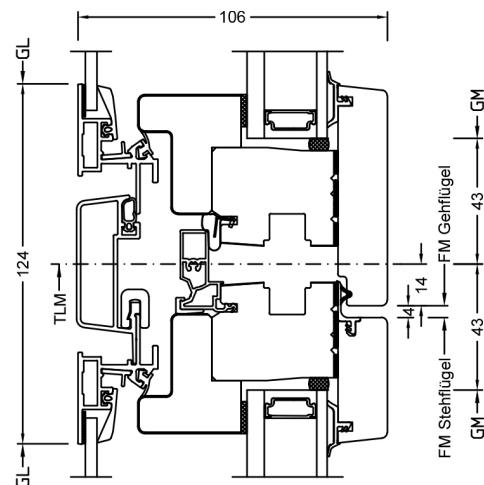
Vertical



Horizontal



Flying mullion

**Values**

Glass buildup	GC	Spacer	Coating	Ug Insulating glass	g	Uf	Psi	Uw	Thermal certif.	Rw	C	Ctr	Sound certif.
4 // 4bESG/12Kr/4/12Kr/b4ESG	100/3A1	Iso	ECLAZ	0.5	59%	0.92	0.028	0.62	YES	39*	-2	-8	NO
		Alu		0.5	59%	0.92	0.046	0.67					
4 // 3bESG/10Kr/2TVG/10Kr/b3ESG	100/37F	Iso	ECLAZ	0.6	60%	0.94	0.027	0.70	YES	37*	-1	-7	NO
		Alu		0.6	60%	0.94	0.040	0.73					
4 // 4bESG/12Ar/4/12Ar/b4ESG	100/3A2	Iso	ECLAZ	0.7	59%	0.92	0.025	0.76	YES	39	-2	-8	YES
		Alu		0.7	59%	0.92	0.041	0.80					
6 // 4bESG/12Ar/4/12Ar/b4ESG	111/3A2	Iso	ECLAZ	0.7	59%	0.92	0.025	0.76*	NO	42	-2	-7	YES
		Alu		0.7	59%	0.92	0.041	0.80*					
4 // 3bESG/12Ar/3/14Ar/b4	100/3AD	Iso	ECLAZ	0.7	60%	0.92	0.024	0.76*	YES	42	-2	-7	YES
		Alu		0.7	60%	0.92	0.041	0.80*					
4 // 4bESG/10Ar/3/12Ar/b33.2VSG	100/3HP	Iso	ECLAZ	0.8	59%	0.92	0.027	0.83	YES	40*	-2	-8	NO
		Alu		0.8	59%	0.92	0.045	0.88					
4 // 3bESG/8Ar/3/10Ar/b4	100/3AF	Iso	ECLAZ	0.9	60%	0.94	0.023	0.90	YES	39*	-2	-7	NO
		Alu		0.9	60%	0.94	0.035	0.93					
4 // 6/18Ar/b4	100/2KU	Iso	ECLAZ	1.1	69%	0.94	0.024	0.97	YES	40*	-2	-7	NO
		Alu		1.1	69%	0.94	0.039	1.0					
6 // 6/18Ar/b4	111/2KU	Iso	ECLAZ	1.1	69%	0.94	0.024	0.97*	NO	43	-2	-7	YES
		Alu		1.1	69%	0.94	0.039	1.0*					
4 // 4ESG/20Ar/b4	100/2KL	Iso	ECLAZ	1.1	71%	0.94	0.022	0.97	YES	39*	-2	-7	NO
		Alu		1.1	71%	0.94	0.036	1.0					
6 // 4ESG/20Ar/b4	111/2KL	Iso	ECLAZ	1.1	71%	0.94	0.022	0.97*	NO	42	-2	-7	YES
		Alu		1.1	71%	0.94	0.036	1.0*					

Values for home pure with test certificate

**ECLAZ®**

Daylight is crucial for our human organism, our wellbeing and our health. Therefore, Internorm windows are equipped with premium glass coating ECLAZ® as standard. The blue components of the light spectrum are transported through the glass more and ensure up to 10 % more daylight. Compared to conventional market glazing, ECLAZ® is offering:

**More aesthetics –** colour-neutral outside view, a combination of function and aesthetics

**More light –** up to 10% more daylight – better for health and wellbeing – a significant advantage especially in the dark winter months\*

**Visual comfort –** for a brilliant view to the outside

**Room comfort –** makes living areas even lighter and friendlier

**Energy efficiency –** excellent insulation of interior thus reducing heating costs - increased energy efficiency in building - up to 11 % less CO<sub>2</sub> emissions

\* In direct comparison to same glass buildups.