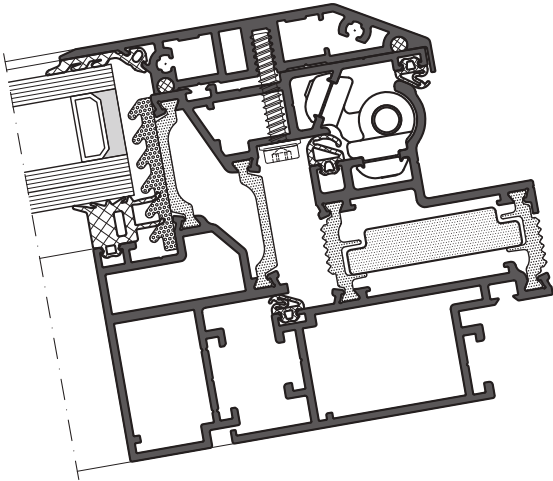


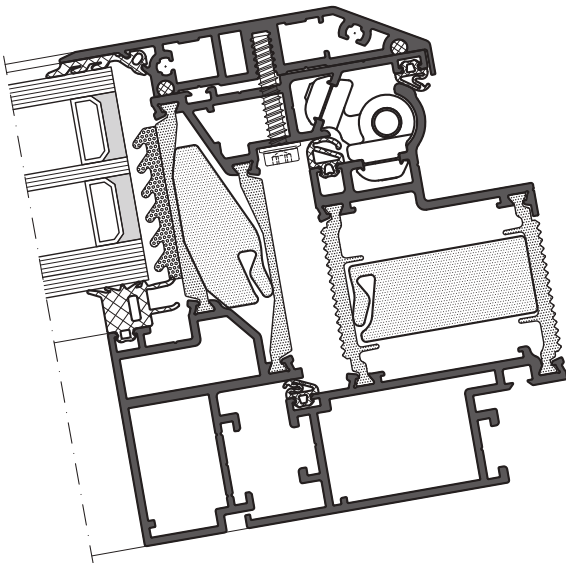
<b>FRAME<sup>+</sup> 100/120 RI</b> Product range	<b>Profiles</b> <b>Gaskets</b> <b>Accessories</b> <b>Fittings</b> <b>Tools</b>	Product range
<b>FRAME<sup>+</sup> 100/120 RI</b>	<b>Window sections</b>	Window sections
<b>FRAME<sup>+</sup> 100/120 RI</b>	<b>Assembly options</b>	Assembly options
<b>FRAME<sup>+</sup> 100/120 RI</b>	<b>Fittings</b>	Fittings
<b>FRAME<sup>+</sup> 100/120 RI</b>	<b>Thermal insulation</b>	Thermal insulation
<b>Technical information</b>	<b>Guidelines for glazing</b> <b>Technical conditions</b> <b>General terms of sale</b>	Technical information



**Passive-house certified rooflight window**



**FRAME<sup>+</sup> 100 RI** thermal insulation with double glazing



**FRAME<sup>+</sup> 120 RI** high thermal insulation with triple glazing

■ **Excellent product properties**

- First “Opening element in a glass roof” certified by the Passive House Institute – therefore a building envelope in the roof from one source completely certified for passive houses.
- $U_{ocw,i}$  value = 0.98 W/(m<sup>2</sup>K) (in curtain wall THERM<sup>+</sup> A-I)
- $U_{ocw,i}$  value = 1.00 W/(m<sup>2</sup>K) (in curtain wall THERM<sup>+</sup> H-I)
- $U_{ocw,i}$  value = 1.00 W/(m<sup>2</sup>K) (in curtain wall THERM<sup>+</sup> S-I)
- All  $U_{ocw,i}$  values with  $U_g = 0.72$  W/(m<sup>2</sup>K),  $\Psi_g = 0.035$  W/(mK), dimensions 1.20 m x 2.50 m.
- Innovative insulating bar material THERMORIT with very low thermal conductivity and suitable for composite coating and anodising.
- High degree of tightness by three peripheral seal levels with medial gasket frame.
- Composite insulation of the profile cavities by means of highly effective insulation insertions.
- Special system geometries and multiple sealing system provide reliable tightness, even with flat roofs.
- Tested with a roof inclination of up to 2°, therefore the perfect complement to the THERM<sup>+</sup> glass roof systems.
- Maximum airflow effect due to an opening angle of up to 90°. Tested for natural ventilation as well as a smoke and heat exhaust ventilator acc. to DIN EN 12101-2.
- High burglar resistance (RC2) for concealed turn hinges.

■ **Optimum planning**

- Variable adjustment of the infill thickness with identical system components for both installation depths.
- Various opening possibilities due to mounting options on all four sides, manual or with motor drive.
- Wide selection of linear or chain drives.

■ **Efficient installation**

- Modular system units.
- Identical half-shells for both installation depths.
- All corner angles can be punched and nailed and are equipped with the adhesive injection process.
- Efficient processing of the glazing rebate insulating block by means of prefabricated corners.
- Integration outer frames with easy adaptation of the clamping thickness using compensation gaskets and compensation profiles.
- Efficient fitting processing by clampable hinge assembly with the possibility of subsequent adjustment.
- Tools can be used for all FRAME<sup>+</sup> window series.
- Available as system for self-fabrication or as pre-assembled units.

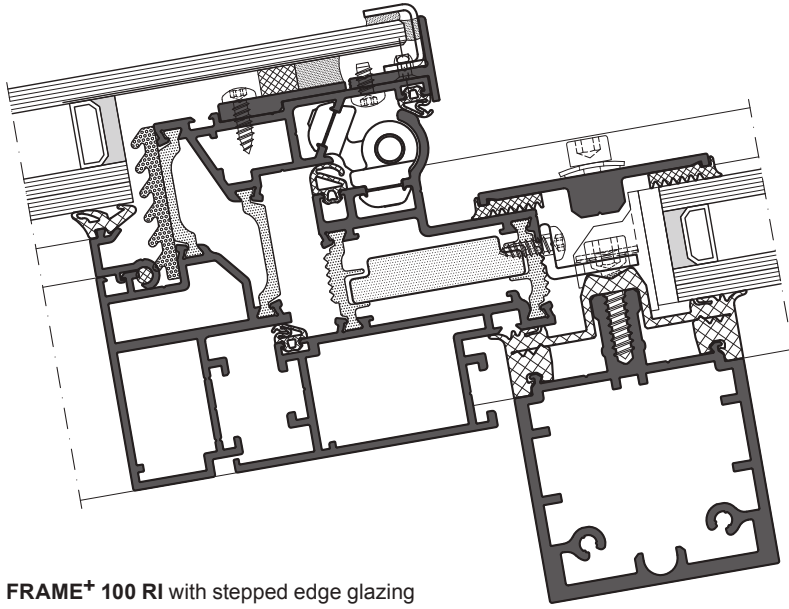
■ **Reliability assured by tested quality**

- The FRAME<sup>+</sup> window system has undergone rigorous testing according to the product standard for windows and exterior doors EN 14351.1. These values are at the same time the base for simplified CE marking of windows.

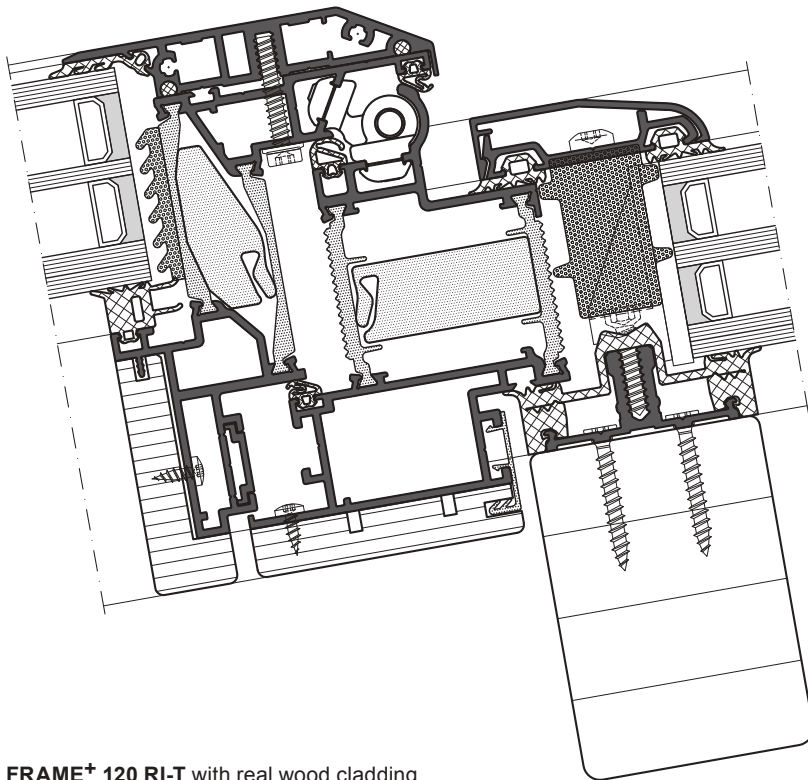
<b>Tests</b>	
$U_f$ values	1.4 to 2.9 W/(m <sup>2</sup> K)
Air permeability	Class 4
Water tightness	E 1500
Resistance to wind load	C3/C4*
Noise protection	on demand
Burglar resistance	RC 2
Mechanical strength (permanent functionality)	Class 3

\* Values are testes maximum levels/maximum classification. The classification must be implemented in accordance with the requirements as set forth in the specifications.

**Transparency and lightness for the glass roof**



**FRAME<sup>+</sup> 100 RI** with stepped edge glazing  
in aluminium curtain wall



**FRAME<sup>+</sup> 120 RI-T** with real wood cladding  
on the inside in timber curtain wall

■ **Versatile options of creative solutions**

- Two different glazing variants due to the option for the screw connection of the cover profile (visible or concealed).
- Stepped glass variant optionally available either in unilateral design or with circumferential full glass finish with identical outer and sash frame.
- Various glass step variants available for a circumferential glass step (F-strip, suction disc).
- The new design variant with a real wood cladding on the inside forms a perfect complement for the timber curtain wall system THERM<sup>+</sup> H-I.

**Application limits**

<b>FRAME<sup>+</sup> 100/120 RI</b> Rooflight window	
<b>System values</b>	
U <sub>f</sub> value <sup>1</sup>	≥ 1.40 W/(m <sup>2</sup> K)
System depth	from 88 mm
<b>Applications</b>	
Opening element in glass roof	X
<b>Application limits*</b>	
Max. weight turn, tilt	225 kg
Max. weight turn	225 kg
Max. sash dimensions <sup>2</sup>	3.500 x 1.500 mm/ 2.100 x 2.500 mm
Infill thickness sash	10 to 80 mm
Infill thickness fixed glazing	11 to 68 mm

<sup>1</sup> Thermal insulation based on DIN ISO 1077-2.

<sup>2</sup> Admissible sash dimensions see diagramme of fittings.

\* Applications outside these limits, would be subject to an assessment by our Technical Department.

**Opening options:**

- Turn window
- Tilt window
- Top hung window

**Handles/Motor:**

- Motor operation
- Hand spindle drive

