

LAMILUX GLASS ELEMENT | APPLICATIONS

DAYLIGHT

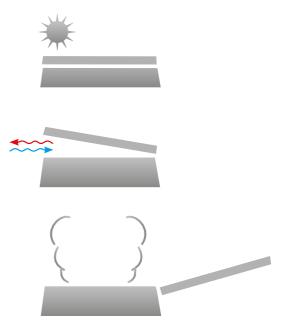
Daylight is good for us - in private life and at work. Our concentration spans become longer and more intense, we feel comfortable and stay in the natural rhythm of the day. This is also why daylight is now firmly anchored in workplace regulations and plays a major role in both new buildings as well as renovations.

VENTILATION

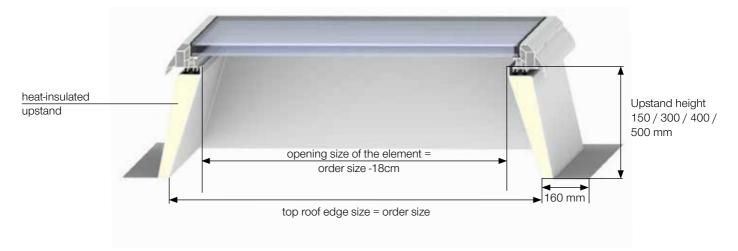
When our concentration fades, fatigue starts or the air becomes stuffy, we notice at the latest the room should be ventilated. Due to daily ventilation, daylight elements provide a healthy indoor climate.

SMOKE AND HEAT EXHAUST

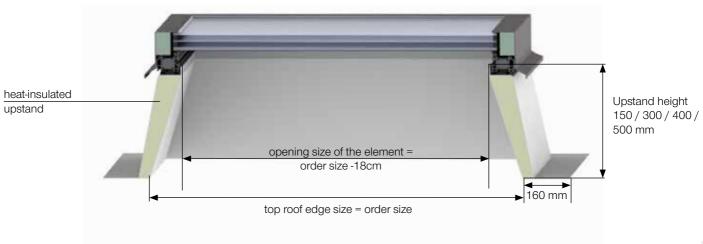
In the event of a fire smoke and heat exhaust ventilation systems integrated into the daylight elements ensure life-saving security. Automated or manual flap openings keep escape routes smoke-free and also enable emergency workers to better enter the building - to evacuate people, material good and preserve the building.

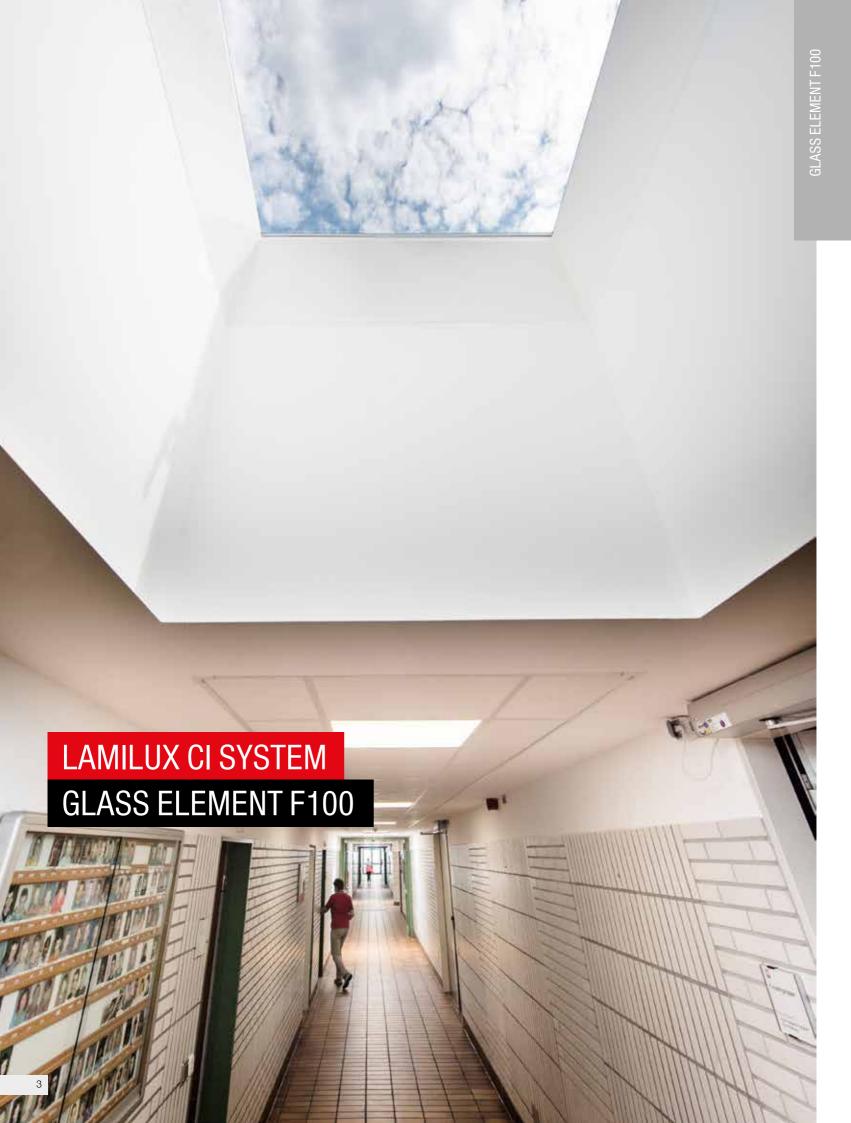


LAMILUX GLASS ELEMENT F100



LAMILUX GLASS ELEMENT FE 0°





HEAT INSULATION GLAZING

HEAT INSULATION GLAZING WITH MATT LIGHT FILM (MLF)



W102 TSG DOUBLE GLAZING

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 80 %
Total energy transmittance: approx. 57 %



W701 TSG TRIPLE GLAZING

Ug-value: approx. 0.7 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 72 %
Total energy transmittance: approx. 51 %



W103 TSG DOUBLE GLAZING (MLF)

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 54 %
Total energy transmittance: approx. 54 %



W702 TSG TRIPLE GLAZING (MLF)

Ug-value: approx. 0.7 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 49 %
Total energy transmittance: approx. 50 %

SUN PROTECTION GLAZING

SUN PROTECTION GLAZING WITH MATT LIGHT FILM (MLF)



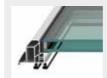
S109 TSG DOUBLE GLAZING 60/30

Ug-value:approx. 1.1 W/(m²K)Sound insulation value:approx. 38 dBLight transmittance:approx. 61 %Total energy transmittance:approx. 30 %



S717 TSG TRIPLE GLAZING 60/30

 $\begin{array}{lll} \text{U}_g\text{-value:} & \text{approx. 0.7 W/(m}^2\text{K}) \\ \text{Sound insulation value:} & \text{approx. 39 dB} \\ \text{Light transmittance:} & \text{approx. 55 \%} \\ \text{Total energy transmittance:} & \text{approx. 28 \%} \end{array}$



S110 TSG DOUBLE GLAZING 60/30 (MLF)

 $\begin{array}{lll} \text{U}_g\text{-value:} & \text{approx. 1.1 W/(m^2K)} \\ \text{Sound insulation value:} & \text{approx. 38 dB} \\ \text{Light transmittance:} & \text{approx. 41 \%} \\ \text{Total energy transmittance:} & \text{approx. 29 \%} \end{array}$



S718 TSG TRIPLE GLAZING 60/30 (MLF)

 $\begin{array}{lll} \text{U}_{\text{g}}\text{-value:} & \text{approx. 0.7 W/(m}^{2}\text{K}) \\ \text{Sound insulation value:} & \text{approx. 39 dB} \\ \text{Light transmittance:} & \text{approx. 37 \%} \\ \text{Total energy transmittance:} & \text{approx. 27 \%} \end{array}$

INFORMATION ABOUT GLAZING VARIANTS

TSG: (Thermal Safety Glass): Has an increased resistance to impacts and shocks thanks to special heat treatment during the manufacturing process. In the event of breakage, the glass shatters in many small pieces with no sharp edges, which reduces the risk of injury.

MLF: The matt, light-coloured pigmentation of the composite safety film prevents glare.

GRP UPSTAND HEAT-INSULATED

Top roof edge size in cm	GRP upstand 15 cm	GRP upstand 30 cm	GRP upstand 40 cm	GRP upstand 50 cm	GRP upstand 40 cm 5° inclined
size of opening top roof edge size					
	EUR	EUR	EUR	EUR	EUR
60 / 60	287,-	371,-	466,-	578,-	750,-
60 / 90	317,-	429,-	580,-	657,-	902,-
60 / 120	391,-	542,-	685,-	825,-	1.055,-
70 / 135	444,-	606,-	773,-	960,-	1.182,-
80 / 80	349,-	467,-	621,-	708,-	976,-
80 / 150	497,-	653,-	871,-	1.073,-	1.311,-
90 / 90	391,-	542,-	685,-	808,-	1.055,-
90 / 120	444,-	645,-	799,-	939,-	1.179,-
90 / 145	550,-	714,-	891,-	1.042,-	1.304,-
100 / 100	425,-	611,-	804,-	926,-	1.211,-
100 / 150	553,-	729,-	1.004,-	1.166,-	1.415,-
120 / 120	518,-	711,-	964,-	1.114,-	1.344,-
120 / 150	602,-	796,-	1.009,-	1.262,-	1.517,-
125 / 125	551,-	729,-	1.031,-	1.161,-	1.417,-
140 / 140	594,-	903,-	1.068,-	1.315,-	1.564,-
150 / 150	681,-	898,-	1.138,-	1.411,-	1.664,-

GLASS ELEMENT F100 | DOUBLE GLAZING

Top roof edge size in cm	Daylight area in m²	Standard position of locking	W102 heat insulation glazing U _g =1.1 W/(m²K)	W103 heat insulation glazing U _g =1.1 W/(m²K) MLF	S109 sun protection glazing U _g =1.1 W/(m²K)	S110 sun protection glazing U _g =1.1 W/(m²K) MLF	Surcharge for internal blind Shadow ¹
size of opening	,						
			EUR	EUR	EUR	EUR	EUR
60 / 60	0,18	•	756,-	772,-	973,-	988,-	
60 / 90	0,30		864,-	891,-	1.083,-	1.106,-	
60 / 120	0,43	•	928,-	979,-	1.209,-	1.261,-	
70 / 135	0,61	m .	1.030,-	1.075,-	1.410,-	1.456,-	
80 / 80	0,38	•	875,-	905,-	1.137,-	1.166,-	1.296,-
80 / 150	0,82	ш	1.226,-	1.291,-	1.741,-	1.805,-	1.428,-
90 / 90	0,52	н	951,-	991,-	1.283,-	1.320,-	1.335,-
90 / 120	0,73	M.	1.088,-	1.157,-	1.542,-	1.611,-	1.394,-
90 / 145	0,91	н	1.209,-	1.301,-	1.771,-	1.860,-	1.444,-
100 / 100	0,67	ш	1.075,-	1.148,-	1.488,-	1.562,-	1.382,-
100 / 150	1,08		1.353,-	1.434,-	2.004,-	2.084,-	1.482,-
120 / 120	1,04	•	1.327,-	1.431,-	1.965,-	2.067,-	1.465,-
120 / 150	1,35	•	1.498,-	1.599,-	2.307,-	2.407,-	1.530,-
125 / 125	1,14	•	1.394,-	1.481,-	2.098,-	2.187,-	1.490,-
140 / 140	1,49	•	1.582,-	1.694,-	2.510,-	2.618,-	1.568,-
150 / 150	1,74		1.709,-	1.877,-	2.743,-	2.907,-	1.615,-

GLASS ELEMENT 100 | TRIPLE GLAZING

Top roof edge size in cm	Daylight area in m²	Standard position of locking	W701 heat insulation glazing U _g =0.7 W/(m²K)	W702 heat insulation glazing U _g =0.7 W/(m²K) MLF	S717 sun protection glazing U _g =0.7 W/(m²K)	S718 sun protection glazing U _g =0.7 W/(m²K) MLF	Surcharge for internal blind Shadow ¹
size of opening top roof edge si	ze						
			EUR	EUR	EUR	EUR	EUR
60 / 60	0,18		861,-	876,-	1.011,-	1.030,-	
60 / 90	0,30		1.026,-	1.051,-	1.178,-	1.211,-	
60 / 120	0,43		1.199,-	1.247,-	1.398,-	1.454,-	
70 / 135	0,61	II .	1.302,-	1.345,-	1.574,-	1.629,-	
80 / 80	0,38	ш	1.059,-	1.089,-	1.234,-	1.271,-	1.296,-
80 / 150	0,82	•	1.612,-	1.675,-	1.950,-	2.021,-	1.428,-
90 / 90	0,52	•	1.186,-	1.222,-	1.404,-	1.448,-	1.335,-
90 / 120	0,73	II .	1.404,-	1.478,-	1.698,-	1.781,-	1.394,-
90 / 145	0,91		1.604,-	1.694,-	1.965,-	2.067,-	1.444,-
100 / 100	0,67		1.380,-	1.451,-	1.645,-	1.727,-	1.382,-
100 / 150	1,08		1.829,-	1.907,-	2.248,-	2.339,-	1.482,-
120 / 120	1,04	•	1.788,-	1.890,-	2.193,-	2.310,-	1.465,-
120 / 150	1,35	ш	2.078,-	2.175,-	2.594,-	2.703,-	1.530,-
125 / 125	1,14	•	1.901,-	1.986,-	2.351,-	2.449,-	1.490,-
140 / 140	1,49	•	2.220,-	2.330,-	2.809,-	2.934,-	1.568,-
150 / 150	1,74	•	2.433,-	2.596,-	3.091,-	3.270,-	1.615,-

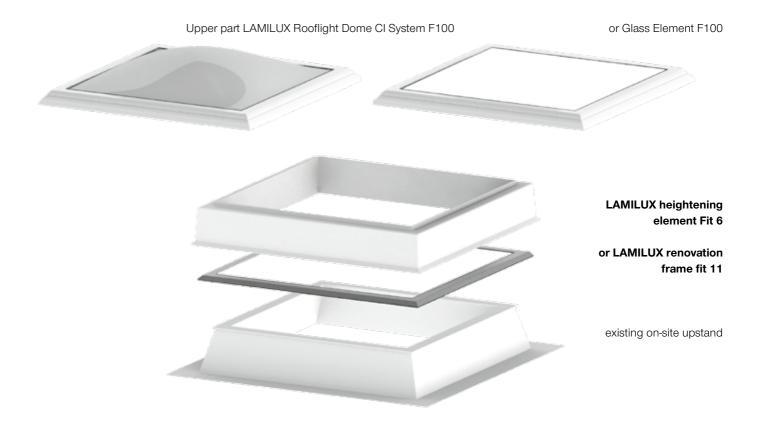
- Option prices for changes to lock positions 106,- EUR
- ¹ glazing variant Shadow requires additional controller components (see internal sun protection page 32). **Not combinable with roof exit hatch.**

LAMILUX RENOVATION SOLUTIONS

ENERGETIC REMEDIATION WITH SIMULTANEOUS OPTICAL REVALUATION

Glass is a longer-term profitable alternative to everyone who wants to remediate a rooflight dome and also an improvement of the energy balance of the building. Better thermal insulation values save energy and the glass version is an attractive option to ensure the fall through protection. Therefore, it is a reasonable and economic alternative to renovate a rooflight dome with a glass element. The compatibility of the systems enables this replacement.





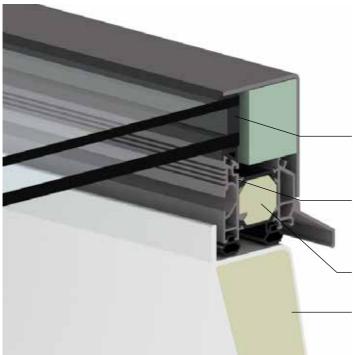
Information

The LAMILUX adjustment elements and renovation frames are placed on existing upstands during the renovation of the roof. This saves time and money because one can proceed without replacing the already existing upstands.



ENERGY-EFFICIENT CONSTRUCTION - WE OFFER MORE!

The glass element type F offers you enormous possibilities: With a more variable size selection, improved thermal insulation properties, still more diverse glazing variants and in the standard version optionally RAL-coated elements, the product characteristics of TYPE F exceed even our glass element F100.



LAMILUX CI SYSTEM GLASS ELEMENT FE (surface inclination 0° or 3°)

'Warm edge' (a spacer between the glass panes made from materials that have low thermal conductivity) **as standard**

TAD – ThermoActiveDesign: A patented component underneath the glass support to increase surface area absorbs more thermal energy from the room's air, increasing the internal temperature of the aluminium frame.

Optimised insulation core

Heat-insulated upstand made of fibre-reinforced plastic:

with (optional) continuous 60mm thick insulation core made from PU foam



LAMILUX CI SYSTEM GLASS ELEMENT FP/FW (surface inclination 30° or 45°)

Heat insulating glass with overlap ESG

'Warm edge' (a spacer between the glass planes made of materials that have low thermal conductivity) as standard

TAD – ThermoActiveDesign: A patented component underneath the glass support to increase surface area absorbs more thermal energy from the room's air, increasing the internal temperature of the aluminium frame.

Optimised insulation core

Heat-insulated upstand made of fibre-reinforced plastic:

with (optional) continuous 60mm thick insulation core made from PU foam

GLAZING TYPES

How much daylight is required for natural, energy-saving illumination, when solar heat input needs to be restricted, how glare can be eliminated – this is all decided by glazing and shading systems geared to match the building's use and comfort requirements.

HEAT INSULATION GLAZING



W102 TSG DOUBLE GLAZING

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 80 %
Total energy transmittance: approx. 52 %



W110 TSG TRIPLE GLAZING

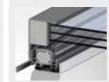
Ug-value:approx. 0.6 W/(m²K)Sound insulation value:approx. 39 dBLight transmittance:approx. 72 %Total energy transmittance:approx. 51 %

HEAT INSULATION GLAZING WITH MATT LIGHT FILM (MLF)



W103 TSG DOUBLE GLAZING (MLF)

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 54 %
Total energy transmittance: approx. 59 %



W303 TSG TRIPLE GLAZING (MLF)

Ug-value: approx. 0.6 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 49 %
Total energy transmittance: approx. 50 %

SUN PROTECTION GLAZING



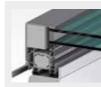
S109 TSG DOUBLE GLAZING 60/30

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 61 %
Total energy transmittance: approx. 30 %



S117 TSG TRIPLE GLAZING 60/30

Ug-value: approx. 0.6 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 55 %
Total energy transmittance: approx. 28 %



S101 TSG DOUBLE GLAZING 48/25

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 49 %
Total energy transmittance: approx. 27 %



S121 TSG TRIPLE GLAZING 48/25

Ug-value: approx. 0.6 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 45 %
Total energy transmittance: approx. 25 %

Other glazing on request.

INFORMATION ABOUT GLAZING VARIANTS

TSG: (Thermal Safety Glass): Has an increased resistance to impacts and shocks thanks to special heat treatment during the manufacturing process. In the event of breakage, the glass shatters in many small pieces with no sharp edges, which reduces the risk of injury.

MLF: The matt, light-coloured pigmentation of the composite safety film prevents glare.

GRP UPSTAND HEAT-INSULATED

Top roof edge size in cm	GRP upstand 15 cm	GRP upstand 30 cm	GRP upstand 40 cm	GRP upstand 50 cm	Safety frame Fit 10+ Hard PVC	Hard PVC connecting rail	WF 50-140mm	WF 141-200
size of opening top roof edge size								
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
50 / 100	334,-	427,-	526,-		248,-	112,-	222,-	307,-
50 / 150	426,-	614,-		997,-	281,-	152,-	255,-	360,-
60 / 60	287,-	371,-	466,-	578,-	224,-	101,-	208,-	274,-
60 / 90	317,-	429,-	580,-	657,-	248,-	112,-	222,-	307,-
60 / 120	391,-	542,-	685,-	825,-	268,-	137,-	199,-	358,-
70 / 135	444,-	606,-	773,-	960,-	287,-	156,-	255,-	363,-
80 / 80	349,-	467,-	621,-	708,-	255,-	118,-	231,-	317,-
80 / 150	497,-	653,-	871,-	1.073,-	302,-	157,-	221,-	296,-
90 / 90	391,-	542,-	685,-	808,-	268,-	131,-	242,-	369,-
90 / 120	444,-	645,-	799,-	939,-	290,-	146,-	261,-	372,-
90 / 145	550,-	714,-	891,-	1.042,-	305,-	177,-	270,-	389,-
100 / 100	425,-	611,-	804,-	926,-	281,-	152,-	255,-	360,-
100 / 150	553,-	729,-	1.004,-	1.166,-	318,-	160,-	286,-	416,-
100 / 200	681,-	897,-	1.211,-	1.411,-	354,-	199,-	316,-	471,-
100 / 240	767,-	1.049,-	1.393,-	1.582,-	383,-	220,-	341,-	513,-
100 / 250	783,-	1.063,-	1.404,-	1.627,-	388,-	222,-	346,-	523,-
100 / 300	894,-	1.245,-		1.869,-	425,-	250,-	375,-	578,-
120 / 120	518,-	711,-	964,-	1.114,-	309,-	158,-	278,-	404,-
120 / 150	602,-	796,-	1.009,-	1.262,-	331,-	186,-	297,-	438,-
120 / 180	685,-	898,-	1.138,-	1.400,-	354,-	199,-	316,-	471,-
120 / 240	803,-	1.063,-	1.427,-	1.681,-	396,-	231,-	354,-	536,-
120 / 250		1.034,-		1.737,-	403,-	238,-	357,-	544,-
120 / 270	856,-	1.158,-	1.465,-	1.858,-	417,-	241,-	372,-	569,-
125 / 125	551,-	729,-	1.031,-	1.161,-	318,-	160,-	286,-	416,-
125 / 250	822,-	1.087,-	1.485,-	1.731,-	405,-	237,-	361,-	552,-
140 / 140	594,-	903,-	1.068,-	1.315,-	343,-	186,-	297,-	443,-
150 / 150	681,-	898,-	1.138,-	1.411,-	356,-	199,-	316,-	471,-
150 / 180	748,-	994,-	1.223,-	1.641,-	376,-	211,-	333,-	504,-
150 / 200	783,-	1.049,-	1.368,-	1.635,-	389,-	220,-	346,-	523,-
150 / 210	800,-	1.063,-	1.427,-	1.681,-	397,-	222,-	354,-	536,-
150 / 240	873,-	1.134,-	1.441,-	1.820,-	418,-	239,-	372,-	569,-
150 / 250	898,-	1.165,-	1.475,-	1.869,-	426,-	250,-	375,-	578,-
150 / 270	938,-	1.211,-	1.548,-	1.963,-	442,-	263,-	388,-	600,-
150 / 300		1.317,-	1.726,-		462,-	279,-	415,-	632,-
180 / 180	800,-	1.063,-	1.425,-	1.758,-	397,-	241,-	354,-	536,-
180 / 240	938,-	1.210,-	1.532,-	2.049,-	442,-	263,-	388,-	600,-
180 / 250	985,-	1.269,-	1.739,-	2.096,-	448,-	268,-	400,-	616,-
180 / 270	1.014,-	1.322,-	1.819,-	2.196,-	462,-	277,-	408,-	632,-
200 / 200	886,-	1.168,-	1.482,-	1.869,-	426,-	250,-	375,-	578,-

OPTIONAL



HARD PVC CONNECTING RAIL

The hard PVC connecting rail can be laminated onto the base flange in the factory and sealwelded in the corners.

ADVANTAGES:

 High polymer PVC and VAE roof sheeting can be welded directly onto the base flange using an expanding air or hot air welding process.



HEAT INSULATED BASE FLANGE (WF)

Thermal insulation and variability.

Construction of glass fibre reinforced plastic filled with PU foam.

ADVANTAGES:

- High insulation level, also available with variable insulation thicknesses
- Customised adaptation to the roof insulation in the base flange

S109/S101

S117/S121

W303

GLASS ELEMENT FE 0° | UPPER PART

W102

W103

Top roof

edge size in cm	heat insulation glazing U _g =1.1 W/(m²K)	heat insulation glazing U _g =1.1 W/(m²K) MLF	heat insulation glazing U _g =0.6 W/(m²K)	heat insulation glazing U _g =0.6 W/(m²K) MLF	sun protection glazing U _g =1.1 W/(m²K)	sun protection glazing U _g =0.6 W/(m²K)
size of opening top roof edge size						
	EUR	EUR	EUR	EUR	EUR	EUR
50 / 100	1.413,-	1.454,-	1.522,-	1.549,-	1.554,-	1.633,-
50 / 150	1.697,-	1.753,-	1.937,-	1.976,-	1.887,-	2.089,-
60 / 60	1.311,-	1.352,-	1.449,-	1.479,-	1.452,-	1.573,-
60 / 90	1.415,-	1.458,-	1.554,-	1.583,-	1.556,-	1.637,-
60 / 120	1.603,-	1.655,-	1.847,-	1.886,-	1.787,-	1.998,-
70 / 135	1.907,-	1.977,-	2.174,-	2.228,-	2.153,-	2.389,-
80 / 80	1.503,-	1.552,-	1.670,-	1.706,-	1.674,-	1.814,-
80 / 150	2.140,-	2.236,-	2.470,-	2.549,-	2.475,-	2.756,-
90 / 90	1.661,-	1.722,-	1.872,-	1.918,-	1.876,-	2.052,-
90 / 120	1.911,-	1.997,-	2.205,-	2.272,-	2.208,-	2.454,-
90 / 145	2.223,-	2.327,-	2.587,-	2.673,-	2.588,-	2.898,-
100 / 100	1.826,-	1.901,-	2.090,-	2.151,-	2.093,-	2.314,-
100 / 150	2.369,-	2.491,-	2.792,-	2.894,-	2.793,-	3.153,-
100 / 200	2.834,-	3.029,-	3.438,-	3.585,-	3.314,-	3.954,-
100 / 240	3.373,-	3.615,-	4.202,-	4.388,-	4.450,-	4.795,-
100 / 250	3.450,-	3.701,-	4.227,-	4.411,-	4.570,-	4.837,-
100 / 300	3.934,-	4.236,-	4.904,-	5.143,-	5.435,-	5.546,-
120 / 120	2.230,-	2.349,-	2.646,-	2.744,-	2.645,-	2.996,-
120 / 150	2.627,-	2.775,-	3.156,-	3.288,-	3.152,-	3.608,-
120 / 180	2.944,-	3.158,-	3.613,-	3.776,-	3.729,-	4.185,-
120 / 240	3.693,-	3.987,-	4.620,-	4.843,-	5.029,-	5.332,-
120 / 250	3.783,-	4.088,-	4.748,-	4.978,-	5.172,-	5.486,-
120 / 270	4.043,-	4.374,-	5.027,-	5.280,-	5.706,-	5.826,-
125 / 125	2.349,-	2.478,-	2.806,-	2.918,-	2.806,-	3.198,-
125 / 250	3.872,-	4.193,-	4.891,-	5.134,-	5.338,-	5.667,-
140 / 140	2.804,-	2.971,-	3.407,-	3.559,-	3.402,-	3.924,-
150 / 150	2.994,-	3.183,-	3.671,-	3.847,-	3.664,-	4.253,-
150 / 180	3.378,-	3.654,-	4.242,-	4.463,-	4.385,-	4.988,-
150 / 200	3.723,-	4.031,-	4.619,-	4.868,-	5.261,-	5.478,-
150 / 210	3.906,-	4.228,-	4.934,-	5.195,-	5.516,-	5.643,-
150 / 240	4.263,-	4.686,-	5.350,-	5.637,-	6.267,-	6.241,-
150 / 250	4.564,-	5.009,-	5.984,-	6.295,-	7.009,-	6.699,-
150 / 270	4.815,-	5.296,-	¹ 6.463,-	¹ 6.798,-	7.472,-	¹ 7.234,-
150 / 300	5.180,-	5.711,-			8.142,-	
180 / 180	3.984,-	4.316,-	4.899,-	5.170,-	5.752,-	5.827,-
180 / 240	4.760,-	5.158,-	6.000,-	6.332,-	6.874,-	7.136,-
180 / 250	4.882,-	5.290,-			7.049,-	
180 / 270	5.339,-	5.785,-			7.709,-	
200 / 200	4.654,-	5.069,-	5.439,-	5.739,-	6.571,-	6.468,-

W110

- For explanations on glazing variants see page 9
- 1 The upper part is available in rigid only

GLASS ELEMENT FE 0° | RAL COATING AND DRIVES

Top roof edge size in cm	Optional RAL coating 9016 Travel white	Optional RAL coating Classic colour as per selection	Electric motor 230 V 300 mm stroke	Chain-drive motor 230 V 300 mm stroke	Electric motor 24 V, SHEV 500mm stroke
size of opening top roof edge size			1		7
	EUR	EUR	EUR	EUR	EUR
50 / 100	213,-	353,-	625,-	950,-	693,-
50 / 150	282,-	468,-	625,-	950,-	693,-
60 / 60	170,-	284,-	625,-	877,-	·
60 / 90	213,-	353,-	625,-	877,-	693,-
60 / 120	253,-	421,-	625,-	877,-	693,-
70 / 135	288,-	478,-	625,-	877,-	693,-
80 / 80	225,-	374,-	625,-	950,-	
80 / 150	324,-	538,-	625,-	950,-	884,-
90 / 90	253,-	421,-	625,-	950,-	693,-
90 / 120	295,-	491,-	625,-	950,-	693,-
90 / 145	329,-	547,-	625,-	950,-	884,-
100 / 100	282,-	468,-	625,-	950,-	693,-
100 / 150	350,-	582,-	625,-	950,-	884,-
100 / 200	421,-	700,-	883,-	950,-	1.654,-
100 / 240	478,-	796,-	883,-	2.337,-	1.690,-
100 / 250	492,-	819,-	883,-	2.337,-	1.690,-
100 / 300	557,-	927,-	2.471,-	2.337,-	1.690,-
120 / 120	336,-	560,-	625,-	950,-	884,-
120 / 150	377,-	628,-	625,-	950,-	884,-
120 / 180	421,-	700,-	883,-	2.337,-	1.654,-
120 / 240	505,-	841,-	883,-	2.337,-	1.690,-
120 / 250	520,-	865,-	883,-	2.337,-	1.690,-
120 / 270	543,-	905,-	2.471,-	2.337,-	1.690,-
125 / 125	350,-	582,-	625,-	950,-	884,-
125 / 250	526,-	876,-	2.471,-	2.337,-	1.690,-
140 / 140	393,-	654,-	883,-	2.337,-	1.654,-
150 / 150	421,-	700,-	883,-	2.337,-	1.654,-
150 / 180	461,-	768,-	883,-	2.337,-	1.690,-
150 / 200	491,-	816,-	2.471,-	2.337,-	1.690,-
150 / 210	504,-	840,-	2.471,-	2.337,-	1.690,-
150 / 240	542,-	903,-	2.471,-	2.337,-	1.690,-
150 / 250	558,-	929,-	2.471,-	2.337,-	1.690,-
150 / 270	586,-	975,-	2.471,-	2.337,-	1.690,-
150 / 300	627,-	1.044,-	2.471,-	2.337,-	1.690,-
180 / 180	503,-	837,-	2.471,-	2.337,-	1.690,-
180 / 240	586,-	979,-	2.471,-	2.337,-	1.690,-
180 / 250	599,-	1.003,-	2.471,-	2.337,-	1.690,-
180 / 270	627,-	1.053,-	2.471,-	2.337,-	1.690,-
200 / 200	560,-	932,-	2.471,-	2.337,-	1.690,-

- Optional RAL coating: RAL Classic colours, no metallic, gloss level around 75%, two-colour RAL coating (inside/ outside) upon request
- More information about electric motors on page 28,29
- Standard design for snow loads up to 0,75kN/m² and wind surge breakage up to 0,8kN/m²; higher snow loads upon request
- Motors for the variant double glazing, possibly other motors necessary for the variant triple glazing

GLASS ELEMENT FE 3° | UPPER PART



Top roof edge size in cm	W102 heat insulation glazing U _g =1.1 W/(m²K)	W103 heat insulation glazing U _g =1.1 W/(m²K) MLF	W110 heat insulation glazing U _g =0.6 W/(m²K)	W303 heat insulation glazing U _g =0.6 W/(m²K) MLF	S109 /S101 sun protection glazing U _g =1.1 W/(m²K)	S117/S121 sun protection glazing U _g =0.6 W/(m²K)
size of opening top roof edge size						
	EUR	EUR	EUR	EUR	EUR	EUR
50 / 100	1.873,-	1.913,-	1.995,-	2.025,-	2.012,-	2.122,-
50 / 150	2.212,-	2.262,-	2.466,-	2.509,-	2.387,-	2.630,-
60 / 60	1.729,-	1.770,-	1.885,-	1.917,-	1.870,-	2.015,-
60 / 90	1.883,-	1.922,-	2.048,-	2.079,-	2.023,-	2.140,-
60 / 120	2.114,-	2.165,-	2.234,-	2.275,-	2.291,-	2.394,-
70 / 135	2.460,-	2.534,-	2.520,-	2.581,-	2.569,-	2.720,-
80 / 80	2.000,-	2.048,-	2.192,-	2.230,-	2.169,-	2.350,-
80 / 150	2.746,-	2.840,-	3.119,-	3.199,-	3.075,-	3.419,-
90 / 90	2.195,-	2.258,-	2.441,-	2.489,-	2.413,-	2.637,-
90 / 120	2.505,-	2.589,-	2.836,-	2.905,-	2.801,-	3.102,-
90 / 145	2.828,-	2.929,-	3.230,-	3.317,-	3.184,-	3.552,-
100 / 100	2.419,-	2.496,-	2.731,-	2.797,-	2.696,-	2.981,-
100 / 150	3.061,-	3.183,-	3.547,-	3.654,-	3.495,-	3.941,-
100 / 200	3.673,-	3.872,-	4.363,-	4.514,-	4.401,-	4.929,-
100 / 240	4.343,-	4.600,-	5.318,-	5.505,-	5.518,-	5.982,-
100 / 250	4.460,-	4.730,-	5.643,-	5.662,-	5.698,-	6.183,-
100 / 300	5.070,-	5.390,-	6.216,-	6.449,-	6.133,-	7.070,-
120 / 120	2.909,-	3.028,-	3.375,-	3.474,-	3.325,-	3.751,-
120 / 150	3.347,-	3.496,-	3.935,-	4.067,-	3.872,-	4.412,-
120 / 180	3.751,-	3.965,-	4.490,-	4.652,-	4.537,-	5.098,-
120 / 240	4.682,-	4.982,-	5.801,-	6.020,-	6.077,-	6.587,-
120 / 250	4.811,-	5.124,-	5.990,-	6.220,-	6.281,-	6.813,-
120 / 270	5.110,-	5.447,-	6.316,-	6.562,-	6.564,-	7.199,-
125 / 125	3.052,-	3.181,-	3.567,-	3.679,-	3.515,-	3.984,-
125 / 250	4.915,-	5.242,-	6.148,-	6.391,-	6.462,-	7.010,-
140 / 140	3.464,-	3.630,-	4.063,-	4.214,-	4.060,-	4.603,-
150 / 150	3.806,-	3.997,-	4.558,-	4.730,-	4.482,-	5.172,-
150 / 180	4.275,-	4.549,-	5.224,-	5.440,-	5.291,-	6.008,-
150 / 200	4.676,-	4.984,-	5.659,-	5.901,-	5.968,-	6.557,-
150 / 210	4.889,-	5.216,-	6.030,-	6.281,-	6.162,-	6.855,-
150 / 240	5.363,-	5.793,-	6.607,-	6.889,-	6.690,-	7.575,-
150 / 250	5.721,-	6.174,-	7.340,-	7.649,-	7.156,-	8.130,-
150 / 270	6.016,-	6.500,-	¹ 7.927,-	¹ 8.261,-	7.548,-	¹ 8.596,-
150 / 300	6.477,-	7.012,-			8.337,-	
180 / 180	4.973,-	5.306,-	5.987,-	6.250,-	6.220,-	6.956,-
180 / 240	5.943,-	6.340,-	¹ 7.332,-	¹ 7.653,-	7.432,-	¹ 8.520,-
180 / 250	6.094,-	6.502,-			7.621,-	
180 / 270	6.665,-	7.111,-			8.335,-	
200 / 200	5.751,-	6.167,-	7.181,-	7.495,-	7.037,-	8.531,-

- For more information on glazing variants see page 9
- Our recommendation: Use the Glass Element FE3° for flat roofs without incline
- The upper part is available in rigid only

GLASS ELEMENT FE 3° | RAL COATING AND DRIVES



Top roof edge size in cm	Optional RAL coating 9016 Travel white	Optional RAL coating Classic colour as per selection	Electric motor 230 V 300 mm stroke	Chain-drive motor 230 V 300 mm stroke	Electric motor 24 V, SHEV 500mm stroke
size of opening top roof edge size			1	*	7
	EUR	EUR	EUR	EUR	EUR
50 / 100	293,-	487,-	625,-	950,-	693,-
50 / 150	397,-	661,-	625,-	950,-	693,-
60 / 60	231,-	385,-	625,-	877,-	,
60 / 90	288,-	479,-	625,-	877,-	693,-
60 / 120	346,-	575,-	625,-	877,-	693,-
70 / 135	393,-	655,-	625,-	877,-	693,-
80 / 80	308,-	512,-	625,-	950,-	,
80 / 150	440,-	733,-	625,-	950,-	884,-
90 / 90	346,-	574,-	625,-	950,-	693,-
90 / 120	404,-	672,-	625,-	950,-	693,-
90 / 145	451,-	749,-	625,-	950,-	884,-
100 / 100	383,-	637,-	625,-	950,-	693,-
100 / 150	479,-	798,-	625,-	950,-	884,-
100 / 200	574,-	955,-	883,-	2.337,-	1.654,-
100 / 240	600,-	1.000,-	883,-	2.337,-	1.690,-
100 / 250	617,-	1.027,-	883,-	2.337,-	1.690,-
100 / 300	689,-	1.147,-	2.471,-	2.337,-	1.690,-
120 / 120	460,-	766,-	625,-	950,-	884,-
120 / 150	519,-	863,-	625,-	950,-	884,-
120 / 180	574,-	956,-	883,-	2.337,-	1.654,-
120 / 240	649,-	1.081,-	883,-	2.337,-	1.690,-
120 / 250	667,-	1.110,-	2.471,-	2.337,-	1.690,-
120 / 270	686,-	1.143,-	2.471,-	2.337,-	1.690,-
125 / 125	478,-	797,-	625,-	950,-	884,-
125 / 250	679,-	1.131,-	2.471,-	2.337,-	1.690,-
140 / 140	559,-	931,-	883,-	2.337,-	1.654,-
150 / 150	576,-	959,-	883,-	2.337,-	1.654,-
150 / 180	633,-	1.054,-	883,-	2.337,-	1.690,-
150 / 200	671,-	1.118,-	2.471,-	2.337,-	1.690,-
150 / 210	656,-	1.092,-	2.471,-	2.337,-	1.690,-
150 / 240	707,-	1.177,-	2.471,-	2.337,-	1.690,-
150 / 250	727,-	1.211,-	2.471,-	2.337,-	1.690,-
150 / 270	763,-	1.270,-	2.471,-	2.337,-	1.690,-
150 / 300	817,-	1.361,-	2.471,-	2.337,-	1.690,-
180 / 180	691,-	1.150,-	2.471,-	2.337,-	1.690,-
180 / 240	752,-	1.348,-	2.471,-	2.337,-	1.690,-
180 / 250	758,-	1.380,-	2.471,-	2.337,-	1.690,-
180 / 270	763,-	1.450,-	2.471,-	2.337,-	,
200 / 200	769,-	1.280,-	2.471,-	2.337,-	1.690,-

- Optional RAL coating: RAL Classic colours, no metallic, gloss level around 75%, two-colour RAL coating (inside/ outside) upon request
- More information about electric motors on page 28,29
- Standard design for snow loads up to 0,75kN/m² and wind surge breakage up to 0,8kN/m²; higher snow loads upon request
- · Motors for the variant double glazing, possibly other motors necessary for the variant triple glazing

GLASS ELEMENT FP/FW 30° | UPPER PART



Top roof edge size in cm	W102 heat insulation glazing U _g =1.1 W/(m²K)	W103 heat insulation glazing U _g =1.1 W/(m²K) MLF	W110 heat insulation glazing U _g =0.6 W/(m²K)	W303 heat insulation glazing U _g =0.6 W/(m²K) MLF	S109 /S101 sun protection glazing U _g =1.1 W/(m²K)	S117/S121 sun protection glazing U _g =0.6 W/(m²K)
size of opening top roof edge size	1	1	1	I	1	1
	EUR	EUR	EUR	EUR	EUR	EUR
50 / 100	2.828,-	3.004,-	3.294,-	3.449,-	3.453,-	3.852,-
50 / 150	3.086,-	3.265,-	3.826,-	3.991,-	3.706,-	4.354,-
60 / 60	2.651,-	2.827,-	3.096,-	3.254,-	3.275,-	3.582,-
60 / 90	2.848,-	3.025,-	3.319,-	3.475,-	3.472,-	3.879,-
60 / 120	2.969,-	3.146,-	3.707,-	3.873,-	3.593,-	4.233,-
70 / 135	3.244,-	3.435,-	4.135,-	4.317,-	3.917,-	4.737,-
80 / 80	2.836,-	3.012,-	3.386,-	3.546,-	3.459,-	3.881,-
80 / 150	3.556,-	3.776,-	4.844,-	5.063,-	4.337,-	5.447,-
90 / 90	2.929,-	3.106,-	3.632,-	3.798,-	3.553,-	4.158,-
90 / 120	3.337,-	3.547,-	4.457,-	4.655,-	4.079,-	5.009,-
90 / 145	3.736,-	3.974,-	5.011,-	5.233,-	4.578,-	5.753,-
100 / 100	3.360,-	3.590,-	4.159,-	4.372,-	4.172,-	4.817,-
100 / 150	4.118,-	4.405,-	5.588,-	5.859,-	5.132,-	6.476,-
100 / 200	4.703,-	5.051,-	6.391,-	6.732,-	5.929,-	7.515,-
100 / 240	5.436,-	5.819,-	7.358,-	7.762,-	6.715,-	8.706,-
100 / 250	5.544,-	5.937,-	7.515,-	7.930,-	6.860,-	8.898,-
100 / 300	6.505,-	6.938,-	8.363,-	8.844,-	7.912,-	9.941,-
120 / 120	4.195,-	4.525,-	5.540,-	5.880,-	5.366,-	6.600,-
120 / 150	4.787,-	5.161,-	6.529,-	6.929,-	6.113,-	7.774,-
120 / 180	5.194,-	5.612,-	7.151,-	7.604,-	6.676,-	8.562,-
120 / 240	6.185,-	6.685,-	8.628,-	9.199,-	7.920,-	10.448,-
120 / 250	6.305,-	6.820,-	8.804,-	9.392,-	8.089,-	10.668,-
120 / 270	6.988,-	7.512,-	9.191,-	9.815,-	8.749,-	11.161,-
125 / 125	4.467,-	4.818,-	5.929,-	6.309,-	5.180,-	7.106,-
125 / 250	6.509,-	7.058,-	9.134,-	9.761,-	8.423,-	11.108,-
140 / 140	5.395,-	5.858,-	7.368,-	7.881,-	7.047,-	8.936,-
150 / 150	5.889,-	6.420,-	8.106,-	8.699,-	7.776,-	9.885,-
150 / 180	6.437,-	7.025,-	9.172,-	9.844,-	8.520,-	11.255,-
150 / 200	6.772,-	7.401,-	9.635,-	10.354,-	8.994,-	11.851,-
150 / 210	6.990,-	7.636,-	9.922,-	10.661,-	9.269,-	12.197,-
150 / 240	7.882,-	8.564,-	10.712,-	11.460,-	10.235,-	13.019,-
150 / 250	8.030,-	8.731,-	¹ 11.141,-	¹ 11.919,-	10.444,-	¹ 13.540,-
150 / 270	8.365,-	9.101,-			10.911,-	
150 / 300	8.834,-	9.636,-			11.584,-	
180 / 180	7.607,-	8.362,-	10.829,-	11.705,-	10.289,-	13.474,-
180 / 240	8.793,-	9.665,-			11.892,-	
180 / 250	8.951,-	9.840,-			12.107,-	
180 / 270	¹9.301,-	¹ 10.224,-			¹12.579,-	
200 / 200	9.247,-	10.196,-	¹13.041,-	14.096,-	12.616,-	¹ 16.036,-

- For explanations on glazing variants see page 9
- The upper part is available in rigid only

GLASS ELEMENT FP/FW 30° | RAL COATING AND DRIVES



Top roof edge size in cm	Optional RAL coating 9016 Travel white	Optional RAL coating Classic colour as per selection	Electric motor 230 V 300 mm stroke	Chain-drive motor 230 V 300 mm stroke	Electric motor 24 V, SHEV 500mm stroke
size of opening					7
	EUR	EUR	EUR	EUR	EUR
50 / 100	325,-	540,-	625,-	950,-	693,-
50 / 150	433,-	720,-	625,-	950,-	693,-
60 / 60	257,-	428,-	625,-	877,-	
60 / 90	325,-	541,-	625,-	877,-	693,-
60 / 120	392,-	651,-	625,-	877,-	693,-
70 / 135	448,-	744,-	625,-	877,-	693,-
80 / 80	346,-	574,-	625,-	950,-	
80 / 150	501,-	835,-	625,-	950,-	884,-
90 / 90	390,-	649,-	625,-	950,-	693,-
90 / 120	458,-	762,-	625,-	950,-	884,-
90 / 145	512,-	853,-	625,-	950,-	884,-
100 / 100	434,-	723,-	625,-	950,-	693,-
100 / 150	546,-	910,-	883,-	950,-	884,-
100 / 200	658,-	1.095,-	883,-	2.337,-	1.654,-
100 / 240	736,-	1.226,-	883,-	2.337,-	1.690,-
100 / 250	758,-	1.262,-	2.471,-	2.337,-	1.690,-
100 / 300	856,-	1.426,-	2.471,-	2.337,-	1.690,-
120 / 120	523,-	871,-	883,-	950,-	884,-
120 / 150	590,-	982,-	883,-	2.337,-	1.654,-
120 / 180	658,-	1.094,-	883,-	2.337,-	1.690,-
120 / 240	782,-	1.302,-	2.471,-	2.337,-	1.690,-
120 / 250	804,-	1.339,-	2.471,-	2.337,-	1.690,-
120 / 270	838,-	1.396,-	2.471,-	2.337,-	1.690,-
125 / 125	544,-	906,-	883,-	950,-	884,-
125 / 250	815,-	1.357,-	2.471,-	2.337,-	1.690,-
140 / 140	611,-	1.017,-	883,-	2.337,-	1.690,-
150 / 150	656,-	1.091,-	883,-	2.337,-	1.690,-
150 / 180	723,-	1.203,-	2.471,-	2.337,-	1.690,-
150 / 200	767,-	1.278,-	2.471,-	2.337,-	1.690,-
150 / 210	789,-	1.315,-	2.471,-	2.337,-	1.690,-
150 / 240	842,-	1.402,-	2.471,-	2.337,-	1.690,-
150 / 250	863,-	1.436,-	2.471,-	2.337,-	1.690,-
150 / 270	907,-	1.510,-	2.471,-	2.337,-	1.690,-
150 / 300	1.061,-	1.768,-	2.471,-	2.337,-	1.690,-
180 / 180	787,-	1.312,-	2.471,-	2.337,-	1.690,-
180 / 240	883,-	1.513,-	2.471,-	2.337,-	1.690,-
180 / 250	904,-	1.548,-	2.471,-	2.337,-	1.690,-
180 / 270	948,-	1.618,-			
200 / 200	877,-	1.460,-	2.471,-	2.337,-	1.690,-

- Optional RAL coating: RAL Classic colours, no metallic, gloss level around 75%, two-colour RAL coating (inside/ outside) upon request
- More information about electric motors on page 28,29
- Standard design for snow loads up to 0,75kN/m² and wind surge breakage up to 0,8kN/m²; higher snow loads upon request
- · Motors for the variant double glazing, possibly other motors necessary for the variant triple glazing

GLASS ELEMENT FP/FW 45° | UPPER PART



Top roof edge size in cm	W102 heat insulation glazing U _g =1.1 W/(m²K)	W103 heat insulation glazing U _g =1.1 W/(m²K) MLF	W110 heat insulation glazing U _g =0.6 W/(m ² K)	W303 heat insulation glazing U _g =0.6 W/(m²K) MLF	S109 /S101 sun protection glazing U _g =1.1 W/(m ² K)	S117/S121 sun protection glazing U _g =0.6 W/(m ² K)
size of opening top roof edge size	1	1	1	I	1	I
	EUR	EUR	EUR	EUR	EUR	EUR
50 / 100	2.854,-	3.031,-	3.323,-	3.478,-	3.479,-	3.883,-
50 / 150	3.154,-	3.339,-	3.859,-	4.029,-	3.802,-	4.463,-
60 / 60	2.775,-	2.951,-	3.123,-	3.283,-	3.398,-	3.612,-
60 / 90	2.878,-	3.055,-	3.383,-	3.538,-	3.501,-	3.962,-
60 / 120	3.017,-	3.198,-	3.800,-	3.968,-	3.651,-	4.351,-
70 / 135	3.458,-	3.673,-	4.479,-	4.678,-	4.221,-	4.987,-
80 / 80	2.969,-	3.146,-	3.438,-	3.597,-	3.593,-	3.933,-
80 / 150	3.824,-	4.072,-	5.071,-	5.306,-	4.706,-	5.843,-
90 / 90	3.294,-	3.506,-	3.921,-	4.120,-	4.044,-	4.535,-
90 / 120	3.637,-	3.886,-	4.646,-	4.871,-	4.519,-	5.407,-
90 / 145	4.057,-	4.337,-	5.333,-	5.602,-	5.049,-	6.222,-
100 / 100	3.761,-	4.030,-	4.543,-	4.793,-	4.712,-	5.329,-
100 / 150	4.544,-	4.888,-	5.928,-	6.248,-	5.760,-	6.975,-
100 / 200	5.207,-	5.620,-	6.956,-	7.354,-	6.674,-	8.237,-
100 / 240	5.949,-	6.396,-	8.093,-	8.604,-	7.443,-	9.742,-
100 / 250	6.068,-	6.529,-	8.243,-	8.731,-	7.609,-	9.831,-
100 / 300	6.710,-	7.240,-	9.197,-	9.762,-	8.508,-	11.013,-
120 / 120	4.749,-	5.141,-	6.102,-	6.507,-	6.136,-	7.341,-
120 / 150	5.290,-	5.733,-	7.187,-	7.665,-	6.858,-	8.642,-
120 / 180	5.757,-	6.254,-	7.890,-	8.431,-	7.511,-	9.540,-
120 / 240	6.863,-	7.457,-	9.607,-	10.241,-	8.920,-	11.600,-
120 / 250	6.999,-	7.610,-	9.813,-	10.464,-	9.115,-	11.856,-
120 / 270	7.589,-	8.222,-			9.745,-	
125 / 125	5.086,-	5.519,-	6.453,-	6.890,-	6.617,-	7.788,-
125 / 250	7.198,-	7.840,-			9.426,-	
140 / 140	6.070,-	6.611,-	8.142,-	8.745,-	8.001,-	9.955,-
150 / 150	6.684,-	7.317,-	9.043,-	9.748,-	8.915,-	11.127,-
150 / 180	7.197,-	7.892,-	10.227,-	11.027,-	9.654,-	12.658,-
150 / 200	7.536,-	8.269,-	10.705,-	11.646,-	10.133,-	13.271,-
150 / 210	7.807,-	8.566,-			10.496,-	
150 / 240	8.304,-	9.132,-			11.248,-	
150 / 250	8.466,-	9.314,-			11.483,-	
180 / 180	8.845,-	9.764,-			12.105,-	

Information

• For explanations on glazing variants see page 9

GLASELEMENTE FP/FW 45° | RAL COATING AND DRIVES



Top roof edge size in cm	Optional RAL coating 9016 Travel white	Optional RAL coating Classic colour as per selection	Electric motor 230 V 300 mm stroke	Chain-drive motor 230 V 300 mm stroke	Electric motor 24 V, SHEV 500mm stroke
size of opening top roof edge size			1	*	1
	EUR	EUR	EUR	EUR	EUR
50 / 100	330,-	548,-	625,-	950,-	693,-
50 / 150	441,-	735,-	625,-	950,-	693,-
60 / 60	265,-	441,-	625,-	877,-	
60 / 90	331,-	552,-	625,-	877,-	693,-
60 / 120	399,-	664,-	625,-	877,-	693,-
70 / 135	457,-	761,-	625,-	877,-	884,-
80 / 80	358,-	595,-	625,-	950,-	
80 / 150	513,-	854,-	625,-	950,-	884,-
90 / 90	405,-	674,-	625,-	950,-	693,-
90 / 120	469,-	781,-	625,-	950,-	884,-
90 / 145	528,-	878,-	625,-	950,-	884,-
100 / 100	449,-	747,-	625,-	950,-	693,-
100 / 150	561,-	934,-	883,-	950,-	884,-
100 / 200	673,-	1.121,-	883,-	2.337,-	1.690,-
100 / 240	757,-	1.259,-	2.471,-	2.337,-	1.690,-
100 / 250	778,-	1.296,-	2.471,-	2.337,-	1.690,-
100 / 300	887,-	1.478,-	2.471,-	2.337,-	1.690,-
120 / 120	542,-	903,-	883,-	950,-	884,-
120 / 150	608,-	1.013,-	883,-	2.337,-	1.654,-
120 / 180	675,-	1.124,-	2.471,-	2.337,-	1.690,-
120 / 240	806,-	1.342,-	2.471,-	2.337,-	1.690,-
120 / 250	828,-	1.378,-	2.471,-	2.337,-	1.690,-
120 / 270	862,-	1.435,-	2.471,-	2.337,-	1.690,-
125 / 125	565,-	940,-	883,-	2.337,-	1.654,-
125 / 250	840,-	1.399,-	2.471,-	2.337,-	1.690,-
140 / 140	634,-	1.056,-	2.471,-	2.337,-	1.690,-
150 / 150	681,-	1.135,-	2.471,-	2.337,-	1.690,-
150 / 180	747,-	1.245,-	2.471,-	2.337,-	1.690,-
150 / 200	794,-	1.321,-	2.471,-	2.337,-	1.690,-
150 / 210	814,-	1.356,-	2.471,-	2.337,-	1.690,-
150 / 240	878,-	1.463,-	2.471,-	2.337,-	1.690,-
150 / 250	900,-	1.499,-	2.471,-	2.337,-	1.690,-
180 / 180	818,-	1.362,-	2.471,-	2.337,-	1.690,-

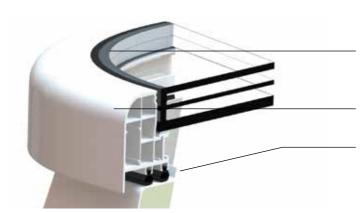
- Optional RAL coating: RAL Classic colours, no metallic, gloss level around 75%, two-colour RAL coating (inside/ outside) upon request
- More information about electric motors on page 28,29
- Standard design for snow loads up to 0,75kN/m² and wind surge breakage up to 0,8kN/m²; higher snow loads upon request
- Motors for the variant double glazing, possibly other motors necessary for the variant triple glazing



GLASS ELEMEMENT F100 IN ROUND DESIGN

The reliable Glass Element in a round design is available with double or triple glazing and assembled on a round upstand. The upstand is seamlessly manufactured and therefore, 100% steamproof. The thermal bridge-free overall system, the outstanding, tested air tightness thanks to balloon double seals as well as optimized isothermal process ensure perfect heat protection.





The newly designed frame profile provides a smoth transition between glazing and frame profile, thus the rainwater drains unproblematically.

Optimized kerb frame

Outstanding, tested air tightness due to ballon double seals.

HEAT INSULATION GLAZING

W801 TSG DOUBLE GLAZING

U_g-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 79 %
Total energy transmittance: approx. 61 %



W803 TSG TRIPLE GLAZING

Ug-value: approx. 0.6 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 72 %
Total energy transmittance: approx. 51 %

HEAT INSULATION GLAZING WITH MATT LIGHT FILM (MLF)



W802 TSG DOUBLE GLAZING (MLF)

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 54 %
Total energy transmittance: approx. 59 %



W804 TSG TRIPLE GLAZING (MHF)

Ug-value: approx. 0.6 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 49 %
Total energy transmittance: approx. 50 %

SUN PROTECTION GLAZING



S809 TSG DOUBLE GLAZING 60/30

U_g-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 60 %
Total energy transmittance: approx. 29 %



S817 TSG TRIPLE GLAZING 60/30

Ug-value: approx. 0.6 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 55 %
Total energy transmittance: approx. 31 %

SUN PROTECTION GLAZING WITH MATT LIGHT FILM (MLF)



S810 TSG DOUBLE GLAZING 60/30 (MLF)

Ug-value: approx. 1.1 W/(m²K)
Sound insulation value: approx. 38 dB
Light transmittance: approx. 41 %
Total energy transmittance: approx. 28 %



S818 TSG TRIPLE GLAZING 60/30 (MLF)

Ug-value:approx. 0.6 W/(m²K)Sound insulation value:approx. 39 dBLight transmittance:approx. 37 %Total energy transmittance:approx. 30 %

INFORMATION ABOUT GLAZING VARIANTS

TSG: (Thermal Safety Glass): Has an increased resistance to impacts and shocks thanks to special heat treatment during the manufacturing process. In the event of breakage, the glass shatters in many small pieces with no sharp edges, which reduces the risk of injury.

MLF: The matt, light-coloured pigmentation of the composite safety film prevents glare.

GLASS ELEMENT F100 IN ROUND DESIGN | UPSTANDS

Diameter in cm	Round Daylight area in m²	GRP upstand 30 cm	GRP upstand 50 cm	GRP upstand 70 cm
size of opening				
		EUR	EUR	EUR
60	0,23	434,-	603,-	940,-
80	0,30	567,-	821,-	1.099,-
90	0,41	651,-	910,-	1.309,-
100	0,53	699,-	978,-	1.398,-
120	0,82	835,-	1.170,-	1.676,-
150	1,37	1.023,-	1.434,-	2.044,-
180 1	2,06	1.203,-	1.649,-	2.467,-

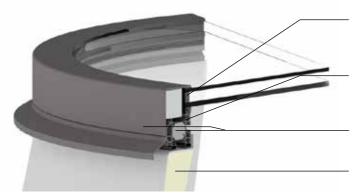
GLASS ELEMENT F100 IN ROUND DESIGN | DOUBLE GLAZING

Diameter in cm	Round Daylight area in m²	W801 heat insulation glazing U _g =1.1 W/(m²K)	W802 heat insulation glazing U _g =1.1 W/(m²K) MLF	S809 sun protection glazing U _g =1.1 W/(m²K)	S810 sun protection glazing U _g =1.1 W/(m²K) MLF
size of opening					
		EUR	EUR	EUR	EUR
60	0,23	2.464,-	2.534,-	2.720,-	2.790,-
80	0,30	2.721,-	2.795,-	2.992,-	3.065,-
90	0,41	2.877,-	2.974,-	3.232,-	3.329,-
100	0,53	3.023,-	3.143,-	3.462,-	3.581,-
120	0,82	3.435,-	3.617,-	4.103,-	4.285,-
150	1,37	4.749,-	5.043,-	5.826,-	6.120,-
180 1	2,06	5.953,-	6.384,-	7.536,-	7.968,-

GLASS ELEMENT F100 IN ROUND DESIGN | TRIPLE GLAZING

Diameter in cm	Round Daylight area in m²	W803 heat insulation glazing U _g =0.6 W/(m²K)	W804 heat insulation glazing U _g =0.6 W/(m²K) MLF	S817 sun protection glazing U _g =0.6 W/(m ² K)	S818 sun protection glazing U _g =0.6 W/(m²K) MLF
size of openin					
		EUR	EUR	EUR	EUR
60	0,23	2.838,-	2.908,-	2.984,-	3.054,-
80	0,30	3.120,-	3.194,-	3.274,-	3.348,-
90	0,41	3.401,-	3.498,-	3.603,-	3.700,-
100	0,53	3.670,-	3.790,-	3.920,-	4.039,-
120	0,82	4.420,-	4.602,-	4.800,-	4.982,-
150	1,37	6.337,-	6.631,-	6.951,-	7.244,-
180 1	2,06	8.288,-	8.720,-	9.190,-	9.622,-

GLASS ELEMEMENT F IN ROUND DESIGN



'Warm edge' (a spacer between the glass planes made from materials that have low thermal conductivity) **as standard**

TAD – ThermoActiveDesign: A patented component underneath the glass support increases the surface area and absorbs more thermal energy form the room air, thereby increasing the internal temperature of the alumnium frame.

Optimised insulation core

Heat-insulated upstand made of fibre-reinforced plastic:

with (optional) continuous 60mm thick insulation core made from PU foam

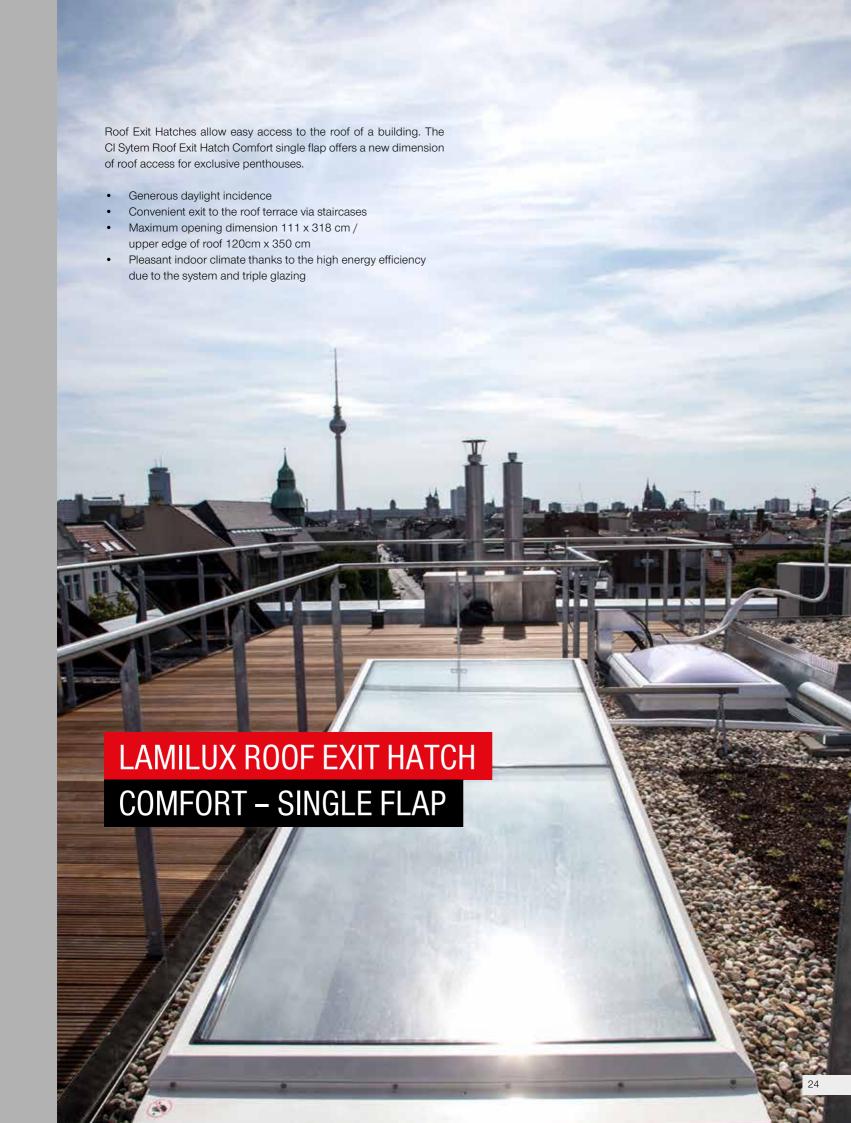
GLASS ELEMENT F IN ROUND DESIGN | UPSTANDS AND RAL COATING

Diameter in cm	GRP upstand 30 cm	GRP upstand 50 cm	GRP upstand 70 cm	Optional RAL coating 9016 Travel white	Optional RAL coating Classic colour as per section
size of opening top roof edge size		5	-		
	EUR	EUR	EUR	EUR	EUR
90	651,-	910,-	1.309,-	160,-	295,-
100	699,-	978,-	1.398,-	185,-	340,-
120	835,-	1.170,-	1.676,-	213,-	391,-
150	1.023,-	1.434,-	2.044,-	265,-	490,-
180	1.203,-	1.649,-	2.467,-	320,-	528,-
200	1.438,-			355,-	587,-
220	1.532,-			391,-	644,-

GLASS ELEMENT F IN ROUND DESIGN | GLAZING

Diameter in cm	W102 heat insulation glazing U _g =1.1 W/(m²K)	W103 heat insulation glazing U _g =1.1 W/(m²K) MLF	W110 heat insulation glazing U _g =0.6 W/(m²K)	S109 /S101 sun protection glazing U _g =1.1 W/(m²K) 60/30	S117/S121 sun protection glazing U _g =0.6 W/(m²K) 60/30
size of opening					
	EUR	EUR	EUR	EUR	EUR
90	6.000,-	6.194,-	6.551,-	6.822,-	7.058,-
100	6.479,-	6.716,-	7.168,-	7.495,-	7.788,-
120	7.845,-	8.215,-	8.946,-	9.419,-	9.901,-
150	9.912,-	10.498,-	11.733,-	12.514,-	13.310,-
180	12.538,-	13.407,-	15.094,-	16.123,-	17.220,-
200	13.792,-	14.892,-	16.870,-	18.041,-	19.404,-
220	17.767,-	19.086,-	21.548,-	23.034,-	24.679,-

- For more explanation see page 9
- Optional RAL coating: RAL Classic colour, no metallic, gloss level around 75%; two-colour RAL coating (inside/ outside) upon request
- Motors available upon request





Tested and proven by recognised certification.

The evaluation according to passive-house standard includes the thermal insulation properties as well as the end results of the heat losses and the thermal heat gains.

- The first skylight certified according to the passive-house standard
- The highest passive-house energy efficiency class –
 phA advanced component
- Heat transfer coefficient (USL): 0.84 W/(m²K)
- Overall system with no thermal bridges and with kink-free isothermal line
- Thermal characteristics calculated on the basis of DIN EN ISO 10077-1 and 10077-2

PASSIVHAUS CERTIFIED GLASS ELEMENTS FE_{ENERGYSAVE}



GLAZING VARIANTS



W203 TSG TRIPLE GLAZING

Ug-value: approx. 0.53 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 72 %
Total energy transmittance: approx. 51 %



S217 TSG SUN PROTECTION GLAZING

Ug-value: approx. 0.53 W/(m²K)
Sound insulation value: approx. 39 dB
Light transmittance: approx. 55 %
Total energy transmittance: approx. 28 %

Information

Possible sizes, drives and prices upon request.



OPENING TOOLS FOR GLASS ELEMENT F100

AK-SPINDLE WITH CRANK HANDLE

Stroke height approx. 28 cm



Manual opening only until 50kg weight of the upper part

• Solo position

 Crank handle for AK-Spindle Lenght 150 cm
 Lenght 200 cm
 Extendable 175 - 300 cm

Extendable 250 - 400 cm



144,- EUR

91,- EUR 101,- EUR 160,- EUR 206,- EUR

SPINDLE DRIVE 230 V



Stroke height 300 mm, 500 N 625,- EUR

Stroke height 300 mm, 800 N 883,- EUR

Stroke height 300 mm, 1300 N (tandem version) 1.552,- EUR

SPINDLE DRIVE 24 V



Stroke height 500 mm, 650 N 693,- EUR

Stroke height 500 mm, 1000 N 884,- EUR

Stroke height 500 mm, 1300 N (tandem version) 1.482,- EUR

CHAIN DRIVE MOTOR

Voltage: 24 V | 230 V



- Stroke height to top roof edge size 100/100: 300 mm
- Stroke heigth to top roof edge size 120/120: 500 mm

24 V: 1.147,- EUR 230 V: 825,- EUR

24 V: 1.206,- EUR 230 V: 1.075,- EUR

COVERED CHAIN DRIVE MOTOR



Motor is integrated into the upstand Voltage 230 V / 24 V Stroke height from top roof edge size 70/135: 250mm 1.232,- EUR

COVERED WIRES OF THE SPINDLE DRIVE AND THE CHAIN DRIVE MOTOR



Wires are integrated in the upstand and therefore not visible on the inside

212,- EUR

LOCKING POSITIONS GLASS ELEMENT F DOUBLE GLAZING

top roof	Glas	s Element FE	/ FE 3° with upstan	ıd	top roof	Glass	Element FP /	FW with upstand	
edge size in cm		Standard position drive 230V	Standard position drive 24V	Standard position Chain drive 230V	edge size in cm		Standard position drive 230V	Standard position drive 24V	Standard position Chain drive 230V
50/100	0°	•	•		50/100	30°	•	•	-50
	3°	-	• = 1			45°	•	•	E-57
50/150	0°	•	• = 0		50/150	30°	•	•	
60/60	3° 0°	•	•		60/60	45° 30°	•	•	
00/00	3°	•		•	60/60	45°	•	•	•
60/90	0°	•	•	•	60/90	30°	•	•	•
	3°	•	•	•		45°	•	•==	•
60/120	0°	•	•	• 3 - 3	60/120	30°	•	•	• <u></u>
70/105	3°	• -	• 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	•==	70/105	45°	•	•	
70/135	0° 3°	•	•	•	70/135	30° 45°	•==	•	•
80/80	0°	•	•	•	80/80	30°	•	•	•
	3°	•		•		45°	•	- 3	•
80/150	0°	•	• == 0	•	80/150	30°	•	•	• = 0
	3°	•	•	•		45°	•	•==	• = 1
90/90	0° 3°	- <u>-</u>	•	•	90/90	30° 45°	• <u>•</u>	•	•
90/120	0°	•	•	•	90/120	30°	•	•	•
,	3°	•	•	•	33, .20	45°	•	•	•
90/145	0°	•	•	•	90/145	30°	• = 5	•	•==0
100/100	3°	• = 1	•	•	4004400	45°	•	•==	·==
100/100	0° 3°	•		•	100/100	30° 45°	•	•	•
100/150	0°	•	•	•	100/150	40°	•	•	•
100,100	3°	•	•	•	100,100	45°	•	•===	•
100/200	0°	•	•	• 12 15	100/200	30°	•	: 1	• L
	3°	-		•		45°	•	:	
100/240	0°	Bahalla Bahalla			100/240	30° 45°	***		
100/250	3° 0°	**	***	13-15-15-15-15-15-15-15-15-15-15-15-15-15-	100/250	45 30°			
100/200	3°		***		100/200	45°		1.5	
100/300	0°		15.4.15		100/300	30°			***
	3°			••		45°	**		
120/120	0°	•	•	•	120/120	30°	-	•	•
120/150	3° 0°	•	•	•	120/150	45° 30°	•		
120/130	3°	•	•	•	120/130	45°		•	•
120/180	0°	•	•	•	120/180	30°	•	•	•
	3°	•	•	•		45°	- = 1		**
120/240	0°	Balanta Balanta		**	120/240	30°		***	<u> </u>
120/250	3° 0°		**		120/250	45° 30°	**	**	**
120/230	3°		**		120/230	45°	**	**	**
120/270	0°	**	**	**	120/270	30°	**	***	**
	3°	**	**	**		45°	1445		***
125/125	0°	•		•	125/125	30°	•		•
125/250	3° 0°	•		•	125/250	45° 30°	•	•	•
120/200	3°	**	***	2-13	120/200	45°	12.11	***	
140/140	0°	•	:	•	140/140	30°	•	•	•
	3°	•		•		45°	•	•	•
150/150	0°	•	:	•	150/150	30°	•	<u>. </u>	
150/180	3° 0°	•	:		150/180	45° 30°			•
150/100	3°	•	:	•	130/100	45°	•	:	•
150/200	0°	•	:	•	150/200	30°	F 1	:	:
	3°	•	:=:	•		45°	• = 1	:	:
150/210	0°				150/210	30°		<u> </u>	***
150/040	3°		***	*	450/040	45°	**	**	**
150/240	0° 3°		***		150/240	30° 45°			
150/250	0°				150/250	30°	1		1.44
,=30	3°	**	**	••		45°		**	**
180/180	0°	:	:	:	180/180	30°	:	:	:
	3°	::	:	:		45°	:	:	:
180/240	0° 3°	**		**	180/240	30° 45°	**	**	[144] [144]
180/250	0°	**		1.55	180/250	45°	12.4	**	
100/200	3°	144		***	100/200	45°	1		
180/270	0°		154415		180/270	30°	12.4	**	1
	3°	**		P***		45°		**	
200/200	0°	:	100 m	100 P	200/200	30°	:	:	:
	3°	:	:	:		45°			

WIND AND RAIN SENSOR SET TYPE J

up to 3 groups



consisting of: 1.610,- EUR

Wind and rain sensor with optical display Operations | Rain | Temperature | Wind incl. case, protection class IP 54 for 3 groups with maximum 10 drives/ group

Other models with more than 3 groups upon request

upon request

WIND AND RAIN SENSOR TYPE RB1

up to 1 group with 6 motor openers as maximum



Pre-assembled at the border frame ex factory

828,- EUR

Consider the extra charge for hidden wires, in case it is not already included in the drive variant

LAMILUX SHEVS FOR STAIRCASE



for ventilated glass elements consisting of:

2.065,- EUR

SHEVS control unit with emergency power supply, 24 V drive, 500 mm stroke and console, 2 SHEVS control switches, 1 ventilation switch

Price for delivery without installation

PUSHBUTTON SWITCH



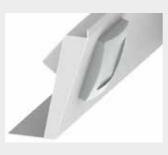


- Pushbutton switch (flush mounted) without control lamp
- Pushbutton switch (surface mounted) without control lamp

99,- EUR 85,- EUR

upon request

SMALL-AREA FAN | VENTILATOR



Ventilator for small rooms

as optional element for LAMILUX upstands with 30, 40 and 50 cm height, incl. weather protection hood. Not available for the round design.

Ventilator for air exhaust

motorized flap for upstand 50 cm, up from fitting side length of 80 cm, except for round design

EXTRA CHARGE ROOF EXIT HATCH GLASS ELEMENT F100

Top roof edge size in cm	Standard position of locking device	Manual roof exit hatch with two gas springs double glazing	Manual roof exit hatch with window handle and two gas springs double glazing
size of opening			
		EUR	EUR
60 / 90	•	798,-	820,-
60 / 120	•	798,-	820,-
70 / 135	•	798,-	820,-
80 / 80	•	798,-	820,-
80 / 150		798,-	820,-
90 / 90	-	798,-	820,-
90 / 120		798,-	820,-
90 / 145	•	798,-	820,-
100 / 100	•	798,-	820,-
100 / 150		798,-	820,-
120 / 120	•	798,-	820,-

OPTIONAL ROOF EXITS/ ENTRANCES FOR GLASS ELEMENTS FE

Top roof edge size in cm	Standard position of locking device	Manual roof exit hatch with two gas springs double glazing	Manual roof exit hatch with window handle and two gas springs double glazing	Electric roof exit hatch 24V double glazing ¹	Electric roof exit hatch 24V triple glazing ¹
size of openin	L				
		EUR	EUR	EUR	EUR
60 / 90		805,-	827,-		
60 / 120		805,-	827,-	4.651,-	4.651,-
70 / 135		805,-	827,-		
80 / 80	•	805,-	827,-	4.651,-	4.651,-
80 / 150		805,-	827,-	4.651,-	4.651,-
90 / 90	•	805,-	827,-	4.651,-	4.651,-
90 / 120		805,-	827,-	4.651,-	4.651,-
90 / 145		805,-	827,-		
100 / 100	•	805,-	827,-	4.651,-	4.651,-
100 / 150				4.651,-	4.651,-
120 / 120		805,-	827,-	4.651,-	4.651,-
120 / 150	•			4.651,-	

Information

- ¹ Accessories for electric roof exit hatches: Ventilation unit: 763,- EUR, key switch flush-mounted: 256,- EUR, key switch-surface mounted: 283,- EUR
- Retrofit kit for roof exit/ exit prepared for COLUMBUS scissor staircase/ ladder bracket/ grating

upon request

INTERNAL SUN PROTECTION FOR GLASS ELEMENTS FE

Sun protection incl. motor control 24 V | incl. coated frame in RAL 9016 (Traffic White)

Top roof edge size	Sun	
in cm	protection	
	EUR	
50 / 100	2.145,-	
50 / 150	2.140,-	
60 / 60	2.230,-	
60 / 90	2.146,-	
60 / 120	2.140,-	
70 / 135	2.278,-	
80 / 80	2.177,-	
80 / 150	2.345,-	
90 / 90	2.222,-	
90 / 120	2.301,-	
90 / 145	2.368,-	
100 / 100	2.286,-	
100 / 150	2.423,-	
100 / 200	2.557,-	
100 / 240	2.674,-	
100 / 250	2.699,-	
100 / 300	2.817,-	
120 / 120	2.397,-	
120 / 150	2.494,-	
120 / 180	2.590,-	
120 / 240	2.782,-	
120 / 250	2.792,-	
120 / 270	2.848,-	
125 / 125	2.427,-	
125 / 250	2.818,-	
140 / 140	2.548,-	
150 / 150	2.609,-	
150 / 180	2.721,-	
150 / 200	2.794,-	
150 / 210	2.834,-	
150 / 240	2.921,-	
150 / 250	2.956,-	
150 / 270	3.023,-	
150 / 300	3.131,-	
180 / 180	2.964,-	
200 / 200	3.118,-	

Controller for 1 item via button	432,- EUR
Controller for 2 to 5 items via button as a group	1.069,- EUR
Controller for 1 item via radio remote control	706,- EUR
Controller for 2 items via radio remote control as a group	826,- EUR
Controller for 3 to 5 items via radio remote control as a group	1.043,- EUR
Alternatively LAMILUX control package Smart Home (p.34)	1.195,- EUR
Basic set ventilation and shade	

INFORMATION

Foil blind with MULTIWAVE pleating light transmission 0.10%, radiation reflection 84%



- Only possible with an upstand height of 30 cm
- Only possible in combination with ventilation by chain-drive motor or for rigid elements
- Further information about the internal sun protection for Glass Elements F100 can be found on page 5
- To prevent damage of the sun protection blinds, actuation of the sun protection is only permitted when the element is closed.

For Glass Element F100 incl. motor control 230 V

Top roof edge	External sun	incl.	
size in cm	protection blinds	SOLARMODUL	
	EUR	EUR	
60 / 60	1.711,-	2.091,-	
60 / 90	1.720,-	2.105,-	
60 / 120	1.799,-	2.185,-	
70 / 135	1.946,-	2.326,-	
80 / 80	1.805,-	2.185,-	
80 / 150	2.042,-	2.422,-	
90 / 90	1.852,-	2.232,-	
90 / 120	1.946,-	2.326,-	
90 / 145	2.089,-	2.469,-	
100 / 100	1.899,-	2.279,-	
100 / 150	2.136,-	2.516,-	
120 / 120	2.089,-	2.469,-	
120 / 150	2.229,-	2.609,-	
125 / 125	2.183,-		
140 / 140	2.170,-		
150 / 150	2.370,-		

Information

- External roller shutter for glass elements with hinges on the narrow site, incl. overload cut-out/ separating relay and electronics for connecting a 230 V sun blind button
- Subsequently installable version with integrated solar panel without external power supply
- Frames and lamellae made of aluminium of the Glass Element F100 are coated in RAL 9016 traffic white



For Glass Element FE0° und FE 3° incl. motor control 230 V

Top roof edge size in cm External sun protection blinds SOLARMODUL protection awning EUR EUR EUR 50 / 100 2.105,- 2.374,- 3.539,- 50 / 150 2.349,- 2.652,- 3.576,- 60 / 60 1.963,- 2.429,- 3.521,- 60 / 90 2.105,- 2.450,- 3.547,- 70 / 135 2.349,- 2.707,- 3.605,- 80 / 80 2.156,- 2.540,- 3.565,- 80 / 150 2.496,- 2.818,- 3.642,- 90 / 90 2.254,- 2.597,- 3.591,- 90 / 120 2.399,- 2.707,- 3.658,- 100 / 100 2.349,- 2.875,- 3.658,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 240 3.842,- 3.753,- 100 / 250 3.858,- 3.753,- 120 / 150 2.544,- 2.876,- 3.683,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 250				
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50 / 100 2.105,- 2.374,- 3.539,- 50 / 150 2.349,- 2.652,- 3.576,- 60 / 60 1.963,- 2.429,- 3.521,- 60 / 90 2.105,- 2.450,- 3.572,- 60 / 120 2.254,- 2.540,- 3.572,- 70 / 135 2.349,- 2.707,- 3.605,- 80 / 80 2.156,- 2.540,- 3.565,- 80 / 150 2.496,- 2.818,- 3.642,- 90 / 90 2.254,- 2.597,- 3.591,- 90 / 120 2.399,- 2.707,- 3.627,- 90 / 145 2.496,- 2.875,- 3.658,- 100 / 100 2.349,- 2.652,- 3.619,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 200 2.836,- 3.753,- 100 / 200 2.836,- 3.730,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 180 2.836,- 3.778,- 120 / 250 3.937,- 3.75				
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60 / 120 2.254,- 2.540,- 3.572,- 70 / 135 2.349,- 2.707,- 3.605,- 80 / 80 2.156,- 2.540,- 3.565,- 80 / 150 2.496,- 2.818,- 3.642,- 90 / 90 2.254,- 2.597,- 3.591,- 90 / 120 2.399,- 2.707,- 3.627,- 90 / 145 2.496,- 2.875,- 3.658,- 100 / 100 2.349,- 2.652,- 3.619,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 200 2.836,- 3.753,- 100 / 250 3.858,- 3.937,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 180 2.836,- 3.733,- 120 / 20 3.937,- 3.958,- 120 / 270 3.958,- 3.756,- 125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 3.854,- 150 / 180 2.7	60 / 60		2.429,-	3.521,-
70 / 135 2.349,- 2.707,- 3.605,- 80 / 80 2.156,- 2.540,- 3.565,- 80 / 150 2.496,- 2.818,- 3.642,- 90 / 90 2.254,- 2.597,- 3.591,- 90 / 120 2.399,- 2.707,- 3.627,- 90 / 145 2.496,- 2.875,- 3.658,- 100 / 100 2.349,- 2.652,- 3.619,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 200 2.836,- 3.753,- 100 / 250 3.842,- 3.937,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 150 2.691,- 3.043,- 3.730,- 120 / 180 2.836,- 3.937,- 120 / 250 3.921,- 3.958,- 120 / 270 3.958,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 150 2.641,- 3.796,- 150 / 200 2.886,- 3.893,- 150 / 240 3.994,-	60 / 90	2.105,-	,	3.547,-
80 / 80 2.156,- 2.540,- 3.565,- 80 / 150 2.496,- 2.818,- 3.642,- 90 / 90 2.254,- 2.597,- 3.591,- 90 / 120 2.399,- 2.707,- 3.627,- 90 / 145 2.496,- 2.875,- 3.658,- 100 / 100 2.349,- 2.652,- 3.619,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 200 2.836,- 3.753,- 100 / 240 3.842,- 100 / 250 3.858,- 100 / 300 3.937,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 150 2.691,- 3.043,- 3.730,- 120 / 240 3.903,- 3.921,- 120 / 250 3.921,- 3.937,- 120 / 270 3.958,- 3.756,- 150 / 150 2.544,- 3.700,- 125 / 250 3.937,- 3.854,- 150 / 150 2.641,- 3.796,- 150 / 200 2.886,- 3.893,- 150 / 240 3.928,- 150 / 240		2.254,-	2.540,-	3.572,-
80 / 150 2.496,- 2.818,- 3.642,- 90 / 90 2.254,- 2.597,- 3.591,- 90 / 120 2.399,- 2.707,- 3.627,- 90 / 145 2.496,- 2.875,- 3.658,- 100 / 100 2.349,- 2.652,- 3.619,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 200 2.836,- 3.753,- 100 / 240 3.842,- 3.858,- 100 / 300 3.937,- 3.683,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 150 2.691,- 3.043,- 3.730,- 120 / 240 3.903,- 3.921,- 120 / 250 3.921,- 3.933,- 120 / 270 3.958,- 3.756,- 125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 240 3.994,- 150 / 270 4.060,-	70 / 135	2.349,-	2.707,-	3.605,-
90 / 90	80 / 80	2.156,-	2.540,-	3.565,-
90 / 120	80 / 150	2.496,-	2.818,-	3.642,-
90 / 145	90 / 90	2.254,-	2.597,-	3.591,-
100 / 100 2.349,- 2.652,- 3.619,- 100 / 150 2.593,- 2.933,- 3.686,- 100 / 200 2.836,- 3.753,- 100 / 240 3.842,- 3.842,- 100 / 250 3.858,- 3.937,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 150 2.691,- 3.043,- 3.730,- 120 / 240 3.903,- 3.921,- 120 / 250 3.937,- 3.958,- 125 / 250 3.937,- 3.700,- 125 / 250 3.937,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 250 4.011,- 180 / 250 4.085,- 180 / 250 4.111,- 180 / 270 4.085,-	90 / 120	2.399,-	2.707,-	3.627,-
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100 / 200 2.836,- 3.753,- 100 / 250 3.842,- 100 / 300 3.937,- 120 / 120 2.544,- 2.876,- 3.683,- 120 / 150 2.691,- 3.043,- 3.730,- 120 / 180 2.836,- 3.778,- 120 / 240 3.903,- 3.921,- 120 / 270 3.958,- 125 / 125 125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.085,-	100 / 100	2.349,-	2.652,-	3.619,-
100 / 240 3.842,-100 / 250 100 / 300 3.937,-120 / 120 120 / 120 2.544,- 2.876,- 3.683,-120 / 150 120 / 150 2.691,- 3.043,- 3.730,-120 / 180 120 / 240 3.903,-120 / 250 120 / 270 3.958,-125 / 125 125 / 125 2.544,- 3.700,-125 / 250 125 / 250 3.937,-140 / 140 150 / 150 2.641,- 3.796,-150 / 150 150 / 150 2.641,- 3.796,-150 / 200 150 / 240 3.928,-150 / 240 150 / 250 4.016,-150 / 270 150 / 300 4.126,-150 / 270 180 / 180 3.931,-180 / 240 180 / 250 4.111,-180 / 270	100 / 150	2.593,-	2.933,-	3.686,-
100 / 250 3.858,-100 / 300 120 / 120 2.544,-2.876,-3.683,-120 / 150 3.043,-3.730,-3.730,-120 / 180 120 / 180 2.836,-3.043,-3.778,-120 / 240 3.903,-120 / 250 120 / 270 3.958,-125 / 125 3.921,-120 / 270 125 / 250 3.937,-140 / 140 2.593,-3.756,-150 / 150 3.756,-150 / 150 150 / 150 2.641,-3.796,-150 / 200 3.854,-150 / 200 3.893,-150 / 210 3.928,-150 / 240 150 / 250 3.994,-150 / 250 4.016,-150 / 270 4.060,-150 / 270 4.060,-150 / 270 4.060,-150 / 250 4.111,-180 / 250 4.111,-180 / 270 4.085,-180 / 250 4.111,-180 / 270 4.162,-180 / 300 4.162,	100 / 200	2.836,-		3.753,-
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120 / 180 2.836,- 3.778,- 120 / 250 3.903,- 120 / 270 3.958,- 125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 140 / 140 2.593,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.162,-	120 / 120	2.544,-	2.876,-	3.683,-
120 / 240 3.903,-120 / 270 120 / 270 3.958,-125 / 125 125 / 125 2.544,-3.700,-125 / 250 140 / 140 2.593,-3.756,-150 / 150 150 / 150 2.641,-3.796,-150 / 180 150 / 200 2.886,-3.893,-150 / 210 150 / 240 3.928,-150 / 240 150 / 250 4.016,-150 / 270 150 / 300 4.126,-180 / 180 180 / 240 4.085,-180 / 250 180 / 250 4.111,-180 / 270	120 / 150	2.691,-	3.043,-	3.730,-
120 / 250 3.921,- 120 / 270 3.958,- 125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 140 / 140 2.593,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.162,-	120 / 180	2.836,-		3.778,-
120 / 270 3.958,- 125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 140 / 140 2.593,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	120 / 240			3.903,-
125 / 125 2.544,- 3.700,- 125 / 250 3.937,- 140 / 140 2.593,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.162,-	120 / 250			3.921,-
125 / 250 3.937,- 140 / 140 2.593,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.162,-	120 / 270			3.958,-
140 / 140 2.593,- 3.756,- 150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.162,-	125 / 125	2.544,-		3.700,-
150 / 150 2.641,- 3.796,- 150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 250 4.111,- 180 / 270 4.162,-	125 / 250			3.937,-
150 / 180 2.791,- 3.854,- 150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	140 / 140	2.593,-		3.756,-
150 / 200 2.886,- 3.893,- 150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 150	2.641,-		3.796,-
150 / 210 3.928,- 150 / 240 3.994,- 150 / 250 4.016,- 150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 180	2.791,-		3.854,-
150 / 240 3.994,- 150 / 250 4.016,- 150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 200	2.886,-		3.893,-
150 / 250 4.016,- 150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 210			3.928,-
150 / 270 4.060,- 150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 240			3.994,-
150 / 300 4.126,- 180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 250			4.016,-
180 / 180 3.931,- 180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 270			4.060,-
180 / 240 4.085,- 180 / 250 4.111,- 180 / 270 4.162,-	150 / 300			4.126,-
180 / 250 4.111,- 180 / 270 4.162,-	180 / 180			3.931,-
180 / 270 4.162,-	180 / 240			4.085,-
	180 / 250			4.111,-
200 / 200 4.034,-	180 / 270			4.162,-
	200 / 200			4.034,-

EXTERNAL BLINDS

RAL standard colours without extra charge

FRAME	SLATS COMBINATION	
	inside	outside

RAL 7043 Traffic Grey B RAL 8019 Grey Brown RAL 9016 Traffic White DB 703 Steel Glimmer

RAL 7035 Light Grey
RAL 7043 Traffic Grey B RAL 9016 Traffic White - RAL 9016 Traffic White RAL 7035 Light Grey - DB 703 Steel Grimmer

Other optional RAL coatings (Frame) 597,- EUR

Other optional RAL coatings (Slats)

992,- EUR



Blinds for glass elements with hinges on the narrow side,

hinges on the long side upon request

EXTERNAL AWING

FRAME

FABRIC COLOUR

Grey

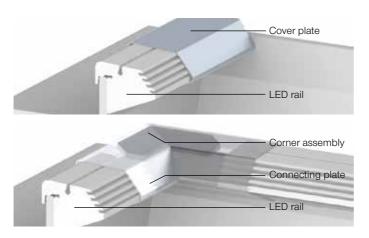
RAL 9016 Traffic White RAL 9006 White Aluminium DB 703 Steel Glimmer RAL 8019 Grey Brown

350,- EUR

Optional other RAL coating (Frame)



LED IN THE UPSTAND



- · LEDs with top-quality daylight character
- Colour selection: Warm White 2700K, Neutral White 4000K
- Covered cable duct in the upstand
- Not possible to retrofit in existing elements
- Rain sensor recommended for LED protection
- Not possible in conjunction with fit adapters or roof exit function
- not possible with inwardly mounted drive or other inwardly pointing components
- 2-sided version with all other elements

LAMILUX REFLECTIVE



- Increase of light transmission of daylight elements by up to 50 % thanks to the protected principle of lining with highly reflective aluminium reflector material
- Up to 33 % savings for artificial light energy
- High-grade internal optics due to precious surfaces

Information

Prices upon request. With pleasure we will make an individual offer.

LAMILUX CONTROL PACKAGE "SMART HOME"

Convenient wireless system for controlling ventilation and shade drives. Upgradeable with additional drives. Simple manual operation via radio.



BASIC SET WITH FOLLOWING FUNCTIONS

‡

Manual operation via radio



Timer



Automatic ventilation depending on internal temperature



Automatic closing

Basic set ventilation Touch display + receiver 1.149,- EUR

Basic set ventilation and shade Touch display + receiver 1.195,- EUR

POSSIBLE UPGRADES



Controlling of the weather conditions



Alert function when it rains, strong winds or frosts



Automatic time adjustment

Smart weather station upgrade

400,- EUR

Smart weather station upgrade, incl. installation on element

559,- EUR

9

Optional app control

Upgrade App control 490,- EUR

TERMS AND CONDITIONS OF SALE AND DELIVERY FOR INTERNATIONAL BUSINESS TRANSACTIONS

I. GENERAL TERMS

- Our terms and conditions apply to all present and future transactions with our contracting partner, hereinafter called Customer, even if we do not express our objection to divergent Terms of Purchase or counter-confirmations which we do hereby expressly reject. They are considered accepted by the Customer at the latest upon acceptance of delivery or service. All supply agreements, other agreements and deviations from our Terms and Conditions only become binding on us after our written confirmation and only on the terms confirmed by us.

 Our silence concerning contractual declarations of the Customer shall never imply our consent.
- The goods are subject to prior sale

Any assignment of a claim against us requires our express confirmation in writing.

All documents and information – especially tender documents – which are handed over to us for generation of offers are of pure informative nature and only become a part of our contractual relation with our express consent.

II. TERMS AND CONDITIONS OF ASSEMBLY

If our products are installed by us in accordance with the agreement, the following additional terms apply: Guard scaffoldings, safety nets pursuant to the accident-prevention rules shall be provided to us free of charge. If additional expenses occur due to the fact that the Customer falsely notified us that all prerequisites are present onsite and that assembly services can be performed, the Customer shall bear any expenses based on a corresponding calculation. Installation prices are subject to the precondition that work can be carried out without interruption

during normal working hours. Installation locations shall be freely accessible for our fitters. Our installation works shall not be impeded by other work or similar. Assembly interruptions due to the weather conditions shall not lead to a delay in performance by us. Engineering drawings shall be released in writing by the Customer. Deadlines agreed upon do not start until return of such release by the Customer

The costumer has to make sure at his own charge and at his own risk, that his building project shows the necessary constructional and structural conditions for a proper installation of our products in accordance with the significant legal regulations. If these conditions are not met, we will not be liable or responsible therefore.

OFFER - CONCLUSION OF THE CONTRACT - OFFER DOCUMENTS

- The Customer's order represents a binding offer which we can accept by forwarding an order confirmation or throughdelivery of the merchandise. The conditions for the assembly to be fulfilled onsite do not form a part of our service.
- Our quotations are subject to change and without committal.

 The contractual relationship or rather the performance of the contract is subject to the necessary export permits being granted and to there being no other obstacles arising from German or other relevant export regulations.
- We reserve our copyright for any sketches, drawings and other documents provided by us
- Economic viability calculations and the yield forecasts they contain shall only represent calculation examples and are not binding. 5

IV.

- The prices included in the sales agreement are binding for an agreed time of delivery of up to 4 months. Our price calculations are carried out exclusively in EUROS. The prices for deliveries abroad are to be understood as ex works (EXW) Rehau (Incoterms 2000). Those for rolls and reelstands exceeding 200 m² are free.
- We do not accept any collateral security for invoice amounts of less than EUR10,000. We will solely furnish security by way of bank guaranty for the aforementioned invoice amounts, if the Customer bears all costs relating to such security.

٧. **PAYMENT TERMS**

- Invoices shall be due on receipt of the invoice not later than 7 days of the date of the invoice unless otherwise agreed in written.
 - All terms of payment are under reserve of confirmation of cover by our credit insurance In the case that goods ordered are not called they will become payable 4 weeks after the initially
- agreed delivery date.

 Any set-off against other undisputable or legally enforceable counterclaims as well as any exercise of the right to refuse performance or right of lien require our express consent.

 Bills of exchange will only be accepted, if agreed upon in advance. Any discount charges and other counterpress of the right of the programment of the
- expenses will be charged to the Customer. All bills of exchange must be issued in accordance with
- expenses will be charged to the Customer. All bills of exchange must be issued in accordance with the requirements laid down by the central bank. If bills of exchange are not presented within due time, we are authorized to demand immediate payment. In case of any decline regarding the financial circumstances of the customer and/or any reservations about the credit standing of the customer (e.g. futile enforcements, revocation of credit insurance coverage) we are entitled to refuse our services until at our option an advance payment or payment of an appropriate surety is made. In the case that our demand for such advance payment or ball is not complied with within an appropriate period as a rule two weeks we are entitled without setting a further period to withdraw from the contract or to claim for damages for default. If the deal is a trading transaction for the customer and the above premises exist we can at our choice – either ask for immediate payment of all claims whether due or undueresulting from all contracts existing between us or ask for a bail for these claims. We are entitled to refuse performance until payment or reception of a bail. Invoices sent by e-mail are to be considered legally binding.

PERIOD OF DELIVERY - PASSING OF RISK

- Statements concerning delivery dates are to be understood as estimations. We do not guarantee the meeting of delivery deadlines. We default only if the circumstances leading to nonperformance are attributable to us. Any claims for damages by the Customer for default of delivery or impossibility are excluded except for cases of injury to person, life or health or gross negligence. Delivery deadlines are reasonably extended in cases of force majeure or other extraordinary, unforeseen and excusablecticumstances which prevent us from executing deliveries at due time; such
- seen and excusablecircumstances which prevent us from executing deliveries at due time; such circumstances are e.g. difficulties in procurement of materials, operational breakdowns, strike, lock-outs, lack of means of transport, government interventions, lack of energy supply, lack of staff, etc. even if these circumstances occur with our suppliers. If the performance of deliveryor service becomes impossible or unacceptable due to the aforementioned circumstances, we are relieved of any delivery obligation. If the delay in delivery exceeds 2 months, the Customer is entitled to cancel the contract. No damages can be claimed by the Customer, if the delivery deadline is extended or if we are relieved of the delivery obligation. We shall only be entitled to invoke theaforementioned circumstances, if we immediately notify the Customer.

 Deliveries also those which are performed free building site or warehouse are performed at the Customer's risk, assuming that the street used for delivery was built for trucks with a total weight of up to 38 tons. Building materials and components must be able to be stored on thebuilding site

- Customer's risk, assuming that the street used for delivery was built for trucks with a total weight of up to 38 tons. Building materials and components must be able to be stored on thebuilding site without the necessity of additional transport. If the aforementioned conditions are not fulfilled and, thus, additional expenses occur, such expenses will be invoiced separately to the Customer. The risk passes to the Customer at the start of loading atthe factory, even if partial deliveries are performed or any assembly obligations have not yet been performed by us. If the material delivered is not unloaded at ground level but according to the Customer's request is delivered orunloaded at or onto the construction in any other way, we do not assume any liability. If the provision "delivery free building site" is agreed, this shall mean delivery without unloading by us. Unloadingshall be carried out without delay and correctly by workers supplied in sufficient numbers by the buyer. We reserve the right to invoice standby times. The customer shall bear the risk of deterioration and loss of materials delivered until final completion of works, unless deterioration or loss are caused by cursos pedificence of the seller. deterioration or loss are caused by gross negligence of the seller.

VII. RETURN DELIVERY

- We shall only accept return consignments of goods if this has been agreed upon in advance and the costs for carriage and packaging are covered. We do not accept any liability for return consignments not agreed upon in advance. Following inspection of the returned goods, we shall reimburse the customer an appropriate portion of the supply price, however at most \$56\% of the supply price. There will be no reimbursement for goods which have already been processed. Materials which were manufactured or designed bespoke to suit customer requirements are exclud-
- ed from the return consignments and reimbursement.

LIABILITY FOR DEFECTS - UNLESS IT CONCERNS PURCHASE OF CONSUMER RODUCTS.

- Complaints due to obvious defects, shall be asserted in writing without delay at the latest, however Complaints due to obvious defects, shall be asserted in writing without delay at the latest, nowever, within 10 days after the date of receipt of goods, otherwise, the items delivered are considered accepted. Slight deviations in colour – e.g. due to environmental influences – are not considered as defects. This also applies to minor changes in the surface structure (colour, shape) as well as minor defects in the appearance of the material which do not affect the function of the item. If complaints are submitted properly and within due time and which we have confirmed are justified,
- we are entitled to the option of either supplementary performance or replacement. If the supplementary performance fails the Customer can demand an appropriate price reduction. If the delivery is based on a purchase contract the right of the purchaser to cancel the contract shall remain unaffected.
- unaffected. If after the failure of the supplementary performance the customer chooses to cancel the contract this shall not includeclaim for damages instead of the fulfilment because of the fault. If after the failure of the supplementary performance he chooses compensation instead of fulfilment the goods shall remain with the Customer if that is acceptable to him. The compensation shall be limited to the difference between the purchase price and the value of the faulty goods. Further claims of the Cus-
- tomer on whatever legal grounds shall be excluded. That shall not apply to injury to person or health or for the loss of the life of the Customer that is attributable to us. For purchase contracts, liability for defects is in principle 1 year from the delivery of the goods. That does not apply if the Customer has not met his obligation for immediate notificationfor obvious defects. For work performances to a construction and for an object that corresponding to its usual application has been used or will be used for a construction and has caused defectiveness in this, the
 - liability for defects is 2 years.

 For all pneumatic, mechanical or electrotechnical/electronic systems or parts thereof where maintenance has an influence on the safety and functionality the limitation period for claims for defects is one year in deviation from Para. 1 if the Customer has decided not to transfer the
- maintenance to us or a certified body appointed by us for the duration of the limitation period. Claims for compensation against us for defects going back to simple negligence shall be excluded. The Customer shall not receive guarantees in the legal sense from us. For all devices that we receive from third parties the factory guarantee of the manufacturer shall apply. The liability for defects for these parts will be provided by us on request.
- For the nature of the goods only the product description of the manufacturer shall apply in principle as agreed. Public statements, marketing or advertising of the manufacturer represent no contractual details of the nature of the goods.
- Improper maintenance or cleaning of our product can lead to the forfeiture of the liability for defects claims. Therefore we urgently recommend that you take note of our care and maintenance instructions from our website www.lamilux.de/tbl/pflege.htm.

 Abnormal stresses on daylight elements by emissions of e.g. production plants or processes can cause increased wear, malfunctions and damage and cannot be used as

Advice as to the applications in words, writing and through experience only consists of non-binding information, including with respect to any third-party industrial property rights, and shall not discharge the Buyer from verifying the products supplied by us for their suitability for the intended processes and purposes. The application, use and processing of the products are beyond our control and fall under the Buyers exclusive responsibility. Should liability come into question, this is limited for all damages to the value of the goods supplied by us and used by the Buyer. We naturally guarantee the flawless quality of our products. This does not concern experimental products.

TITLE TO OWNERSHIP

All deliveries are subject to reservation of title. The goods supplied shall remain our property until full payment of the purchase price and all claims, including future claims that we acquire against the Buyer. The reservation of title shall remain in existence even if some of our claims are incorporated in

a current invoice and a balance is struck and accepted.

If the Buyer processes the goods delivered into a new item, the processing shall be for us. The Buyer cannot acquire title to the processed items, in case of processing with other items that do not be-long to us we shall acquire joint ownership in the new item in the ratio of the value of the goods

belong to us we shall acquire joint ownership in the new item in the ratio of the value of the goods we delivered and the other goods at the time of processing. This new item shall be deemed to be reserved goods as defined in these terms and conditions.

The Buyer shall reserve conditional title to the goods to which he is entitled as against his buyers until the latter have paid the purchase price in full. The invoice value of the goods supplied by the Seller for this transaction shall be assigned to him from the claim that the Buyer acquires on the resale with the conclusion of the contract or this confirmation. In case of assignment the Buyer can only collect he claim for the Seller. The Buyer shall notify the debtors of the assigned claims on demand by the Seller. The Seller can notify the assignment to the debtors.

If the resale takes place together with other goods that do not belong to us at a total price, the

Buyer hereby assigns his claims from the resale with the amount that corresponds to the value of the reserved goods. The assignment of the claim is assumed. If the Buyer installs the reserved goods into premises belonging a third party as an integral part, the Buyer hereby assigns the claim for payment to which he is entitled against the third party or against the person concerned with the amount that corresponds to the value of the reserved goods. The assignment of the claim is assumed.

The Buyer shall keep incoming amounts of money that accrue to reserved goods in part or in whole separately and pay them to us without delay. Even insofar as the Buyer fails to comply with this obligation the Seller shall be entitled to the collected amounts and they shall be kept separately. The Buyer shall notify the Seller immediately of access by third parties to the goods supplied under

reservation of title or to assigned claims.

The Buyer shall be obliged to insure the goods supplied against the risk of theft and to provide evidence to the Seller on demand of the conclusion of the insurance policy.

PLACE OF FULFILMENT AND JURISDICTION XI.

- The place of performance is Rehau
- The legal venue for all disputes arising is Hof/Saale, Germany. German law, including CISG applies.

State: Januar 2013



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ROOFLIGHT DOME F100



ROOFLIGHT DOME F100 ROUND VERSION GLASS ELEMENT F100 ROUND VERSION



CONTINUOUS ROOFLIGHT B



GLASS ARCHITECTURE PR60



SMOKE AND HEAT EXHAUST VENTILATION SYSTEMS



BUILDING CONTROL SYSTEMS



GLASS ELEMENT F



CONTINUOUS ROOFLIGHT WIR



CONTINUOUS ROOFLIGHT S



RENOVATION



SMOKE LIFT TWIN



FIBRE-REINFORCED COMPOSITES

The technical data printed in this brochure was accurate when this brochure went to press and is subject to change without notice. Our technical specifications are based on calculations and supplier specifications, or have been determined by independent testing authorities within the scope of applicable standards.

Thermal transmission coefficients for our composite glazing were calculated using the finite element method with reference values in accordance with DIN EN 673 for insulated glass. Based on empirical values and specific characteristics of the plastics, a temperature vector of 15 K was defined as the vector between the outer surfaces of the material. Functional values refer to test specimens and the dimensions used in testing only. We cannot provide any further guarantees of technical values. This particularly applies to changes in installation locations, or if dimensions are re-measured on site.



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