


HIGH-QUALITY WINDOWS & DOORS

ENERGATE 963 • Wood with aluminium cladding





OUR PRODUCT ADVANTAGES

► Superior thermal performance 

	Width Left & Right	Width Above	Width Below	Width - French casement
Frame dimensions:	115 mm	115 mm	135 mm	136 mm
U_{frame}	1.2 W/m ² K	1.2 W/m ² K	1.5 W/m ² K	1.2 W/m ² K

THERMAL INSULATION*:

U_{glass}	Double 1.1 W/m ² K	Triple 0.7 W/m ² K	Triple 0.5 W/m ² K
U_{window} *	1.24 W/m ² K	0.97 W/m ² K	0.84 W/m ² K

*Specified values are calculated for tested window: Dual action, single opening window
 Window Size: 1.23 x 1.48 m - Norm: EN ISO 10077-2 - Wood species: spruce or larch
 †Glass spacer = 0,032 W/mK

- High selected wood - wood type: spruce (picea abies), oak , larch
- Excellent weathering resistance with highly weatherproof aluminium cladding qualicode 2
- Airtight continuous gaskets

- Thermal bridge free floor connection/wheel chair accessible flat threshold for patio doors
- All types of glass available: Sun protection • Sound insulation Safety toughend or laminated glass • P5A security glass Possible glass thickness from 26 mm to 53 mm
- Triple glass: Ug = 0.5 or 0.7 W/m²K or double glazing Ug = 1.10 W/m²K Execution always with the best fiber spacer Psi ~ 0.03 W/mK
- Make your choice: Standard exposed or fully consealed window hinges
- Adjustable window hinges up to 130 kg, tested on 20.000 opening and closing cycles
- Optional: welded alu clad corners
- All products are CE-certified

ENERGATE® Standard

Serviceability deflection	DIN EN 12210 ± 1800Pa, 2400 Pa and 3000 Pa
Operating force of opening sashes	DIN EN12217 75N (tilt&turn sashes) and 100 N (sliding doors)
Air infiltration	DIN EN12007 Class 4 0.13L/s=0.47m ³ /h@600Pa
Water penetration	DIN EN12208 9A(600 Pa in both +/- directions) single opening window
Ultimate strength	DIN EN 12210 C5 (1/300, 2000/1000/3000 Pa) single opening window
Permanent function	DIN EN 1191 Class 3 up to 20.000 opening & closing cycles

MORE PERFORMANCE
BEST EUROPEAN WINDOW

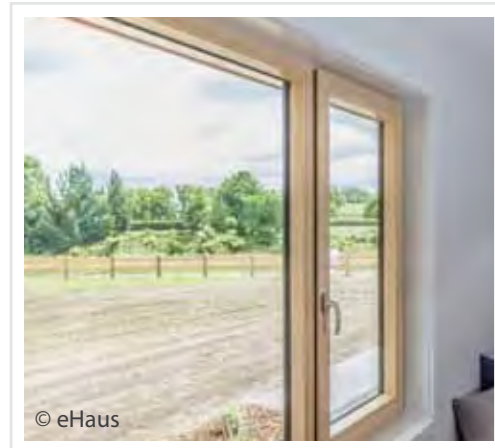


LESS ENERGY



MORE COMFORT

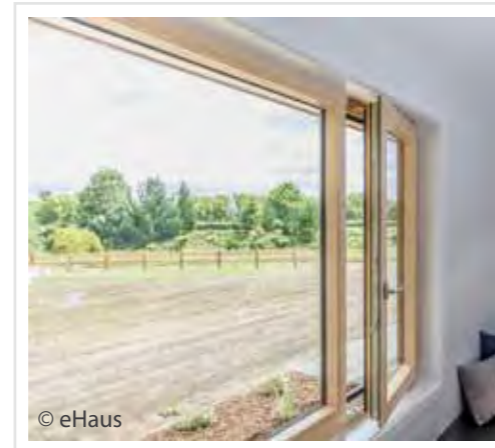
A WIDE CHOICE OF PRODUCT TYPES



1.002
Single opening window with fixed side light



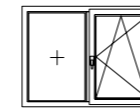
Tilt position



Turn position



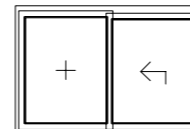
Turn position



8.001
Lift & slide door with flat threshold



Opening position



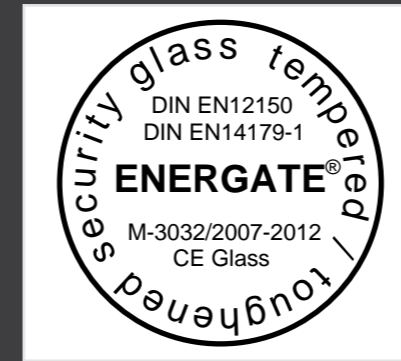
ENERGATE 963 - Wood with aluminium cladding

<p>WINDOW 1.001</p> <p>INSWING</p> <p>VERTICAL SECTION</p>	<p>HINGES</p> <p>Standard hinges</p> <p>A</p> <p>HORIZONTAL SECTION</p> <p>OPTIONAL: Concealed hinges</p> <p>HORIZONTAL SECTION</p>	<p>FIXED FRAME 1.021</p> <p>VERTICAL SECTION</p>	<p>PATIO DOOR 1.101 with flat threshold</p> <p>INSWING</p> <p>VERTICAL SECTION</p> <p>THRESHOLD 1.101</p> <p>B</p> <p>HINGES</p> <p>A</p> <p>HORIZONTAL SECTION</p> <p>see drawing 1.001</p> <p>± 0.000 FFL</p>
<p>SIDE ENTRANCE DOOR 3.001 with flat threshold</p> <p>INSWING</p> <p>VERTICAL SECTION</p> <p>B THRESHOLD</p> <p>see drawing 1.101</p> <p>Lever handle set</p>	<p>MAIN ENTRANCE DOOR 2.201 with flat threshold</p> <p>INSWING</p> <p>VERTICAL SECTION</p> <p>2.201</p> <p>2.201.3</p> <p>OUTSWING</p> <p>± 0.000 FFL</p> <p>Door handle set</p> <p>Various security level and accessories available see main entrance door catalog</p>	<p>LOCKABLE PATIO DOOR 5.001 with flat threshold</p> <p>INSWING</p> <p>VERTICAL SECTION</p> <p>A HINGES</p> <p>B THRESHOLD</p> <p>HORIZONTAL SECTION</p> <p>see drawing 1.001</p> <p>see drawing 1.101</p> <p>Exterior key cylinder and window handle inside and outside</p>	
<p>HINGES</p> <p>3.001</p> <p>INSWING</p> <p>HORIZONTAL SECTION</p> <p>3.001.3</p> <p>OUTSWING</p> <p>± 0.000 FFL</p> <p>VERTICAL SECTION</p> <p>3.001.3</p> <p>OUTSWING</p> <p>HORIZONTAL SECTION</p>	<p>HINGES</p> <p>2.201</p> <p>INSWING</p> <p>HORIZONTAL SECTION</p> <p>2.201.3</p> <p>OUTSWING</p> <p>HORIZONTAL SECTION</p> <p>OPTIONAL: Concealed hinges</p> <p>2.201.3</p> <p>OUTSWING</p> <p>HORIZONTAL SECTION</p>	<p>PARALLEL SLIDE & TILT DOOR 6.001</p> <p>VERTICAL SECTION</p> <p>6.001</p> <p>± 0.000 FFL</p>	<p>LIFT & SLIDE DOOR 8.001</p> <p>VERTICAL SECTION</p> <p>8.001</p> <p>± 0.000 FFL</p>

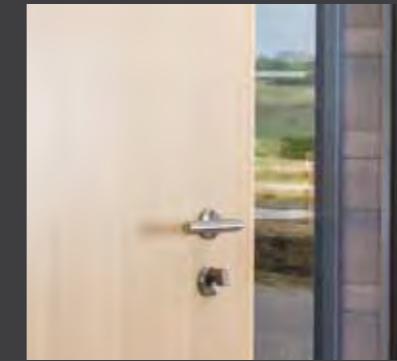
Window & Door System also available as WOOD version without aluminium cladding



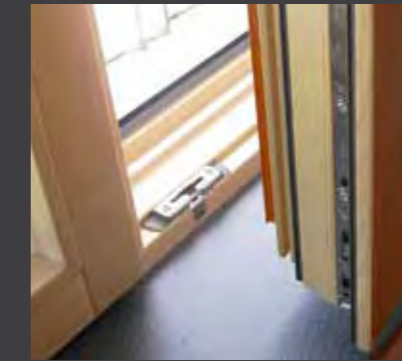
FULL CHOICE OF ACCESSORIES



Toughened safety glass



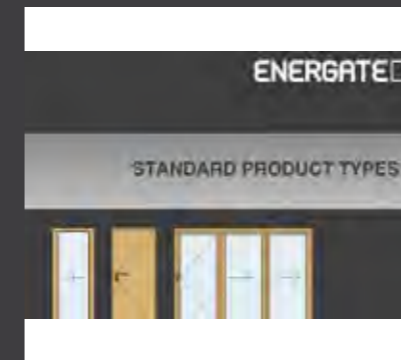
Customized doors



Child safety lock
Hidden rotating lock



Handle choice:
Standard or customized



Product types catalog



Main entrance doors



Various
Alu-clade colors



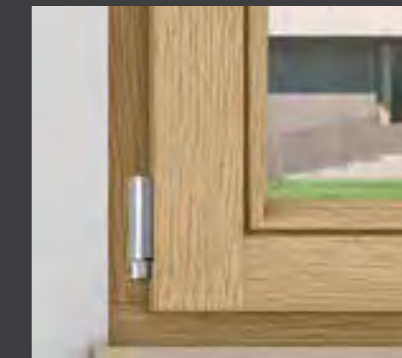
Great choice of fine selected
wood



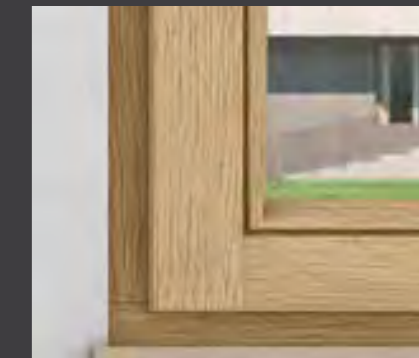
Welded alu clad corners



Plugged alu clad corners



Standard exposed hinges



or
fully concealed hinges

„With ENERGATE windows you get the best value
for a great price“ Customer's review



Expo Haus in Waikato, NZ

- ▶ ENERGATE products available in a range of thermal performances to suit your requirements
- ▶ ENERGATE products are tested in extreme climatic conditions to ensure performance
- ▶ Installation assistance available on request
- ▶ We are specialist in product consulting tailored to your needs

Ludwig International GmbH

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