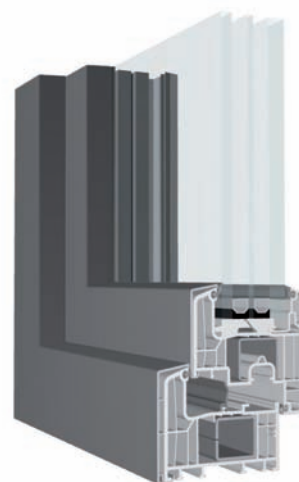


HIGH-QUALITY WINDOWS & DOORS

ENERGATE 893

uPVC system with aluminium cladding



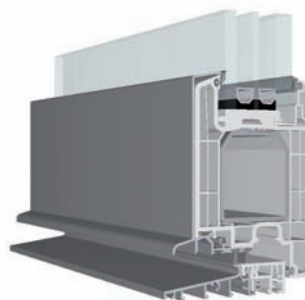
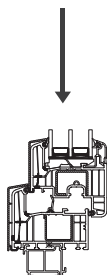
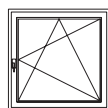
ENERGATE 

HIGH-QUALITY WINDOWS & DOORS

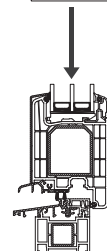
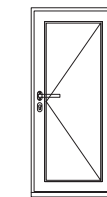
ENERGATE 893 - uPVC with aluminium cladding



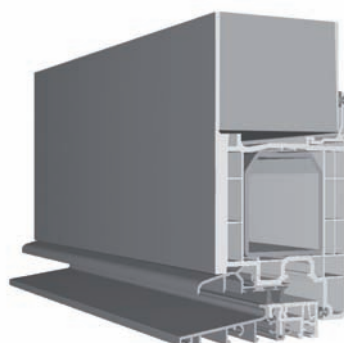
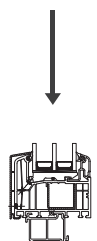
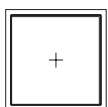
1.001
Casement window



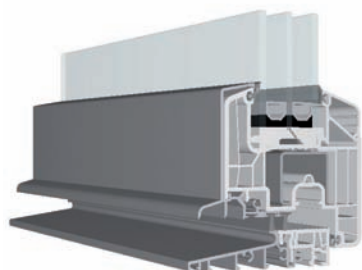
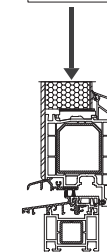
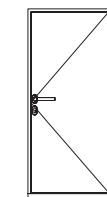
2.001
Main entrance door with flat threshold fully glazed



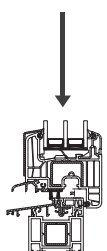
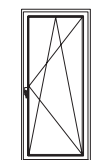
1.021
Fixed window



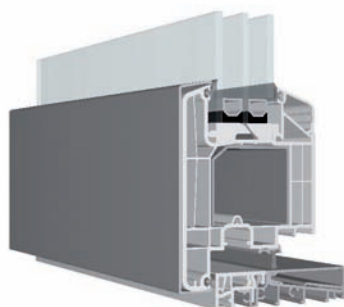
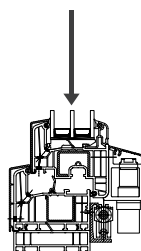
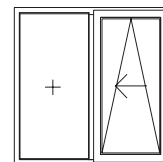
2.201
Main entrance door with flat threshold full slab



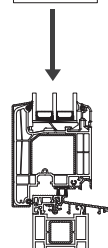
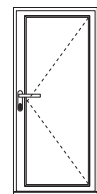
1.101
Patio door with flat threshold



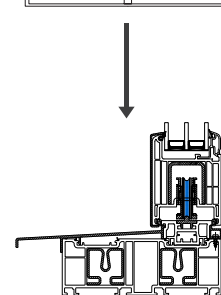
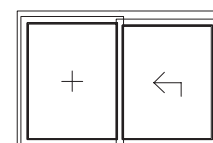
6.001
Parallel slide & tilt window



5.051.4
Lockable patio door with flat threshold - OPENING OUTWARDS



8.001
Lift & slide door with flat threshold



OUR PRODUCT ADVANTAGES

- Superior thermal performance
- Increased stability with a steel core
- High resistance to UV radiation: UV resistance up to 180 kJ/m² radiation level
- Triple airtight continuous gaskets
- 3-dimensional adjustable window hinges up to 130 kg, tested on 20.000 opening and closing cycles
- Thermal bridge free floor connection
- Flat wheel chair accessible threshold for patio & entrance doors
- All types of glass available:
Sun protection • Sound insulation • Safety toughened or laminated glass • P5A glass
- Standard triple glass : $U_g = 0,50 \text{ W/m}^2\text{K}$ or standard double glazing $U_g = 1,20 \text{ W/m}^2\text{K}$
- Execution always with the best warm edge spacer $\Psi \sim 0,040 \text{ W/mK}$
- Make your choice: Standard exposed or fully concealed window hinges
- All products are CE-certified

MORE PERFORMANCE - BEST EUROPEAN WINDOWS

| THERMAL INSULATION: | | | Serviceability deflection | DIN EN 12210 $\pm 1800 \text{ Pa}$, 2400 Pa and 3000 Pa |
|---|--|--------------------|-----------------------------------|---|
| | | W/m ² K | | |
| FRAME | U_f <small>IFT 402 42057/1 (Nr.263)</small> | 0,95* | Operating force of opening sashes | DIN EN12217 75N (tilt&turn sashes) and 100 N (sliding doors) |
| GLASS | U_g | 0,50* | Air infiltration | DIN EN12007 Class 4 · 0.027L/s=0,13m ³ /h@600Pa |
| WINDOW | U_w | 0,74* | Water penetration | DIN EN12208 $\pm 600 \text{ Pa}$ |
| * Specified values are calculated for tested window: Dual action, single opening window Glass spacer: $\Psi \sim 0,040 \text{ W/mK}$ Window Size: 1,23 x 1,48 m Norm: EN ISO 10077- 1:2000-11 | | | Ultimate strength | DIN EN 12210 $\pm 1800 \text{ Pa}$, 2400 Pa and 3000 Pa |
| | | | Permanent function | DIN EN 1191 Class 3 · up to 20.000 opening & closing cycles |

- **Optimal upgrade $U_w = 0,72 \text{ W/m}^2\text{K}$**
with ENERGATE glass fiber spacer $\Psi \sim 0,030 \text{ W/mK}$

GREAT CHOICE OF HIGH PERFORMANCE FILMS & CLADDINGS

Standard white uPVC windows are available with:

- Aluminium cladding - highly weatherproof - HWF superior Weathering Category 3 (Qualicoat Class 2 and/or GSB Premium)

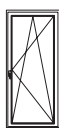
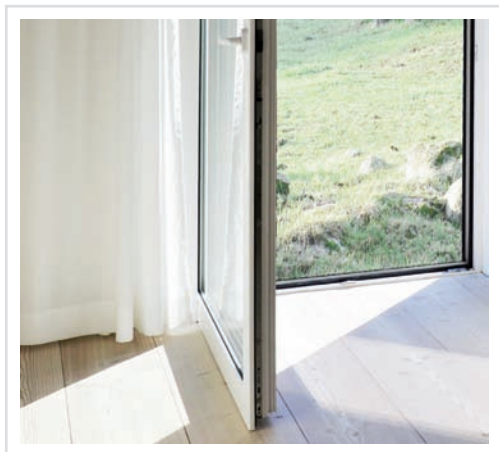
and/or

- High-quality, multi-layer film (FX foils) is extremely weather, temperature and UV resistant optional with gray profile body

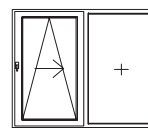
Unique features:

- Significant increase in weathering resistance in terms of color stability and gloss retention
- High color stability with a long life-duration
- Dirt-repellent FX foils with extremely easy to maintain
- Pigments with metallic effects (aluminum-optic)

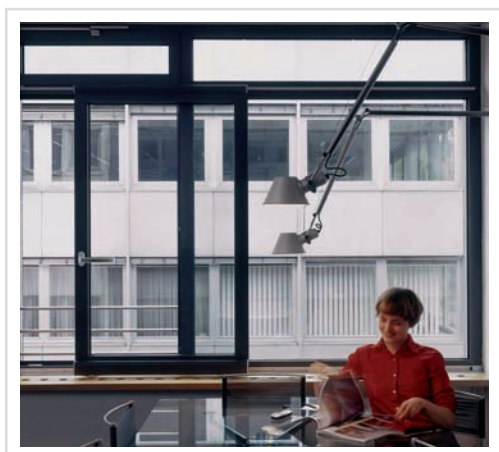
A WIDE CHOICE OF PRODUCT TYPES



1.101
Patio door with flat threshold

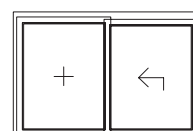


6.001
Slide & tilt window

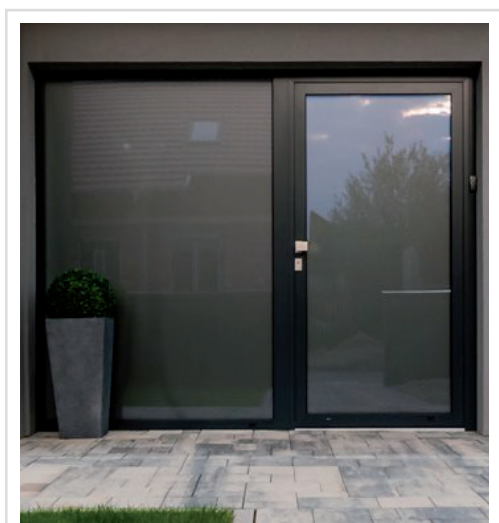


Example for customer-specific combination of product types:

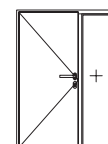
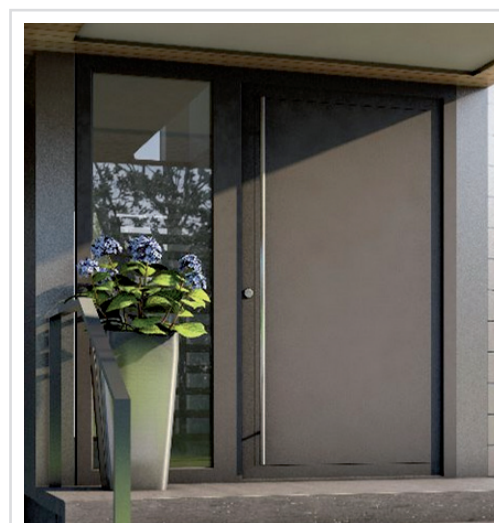
Slide & tilt window with tilt window and fixed light above



8.001
Detail: Flat threshold - Lift & slide door

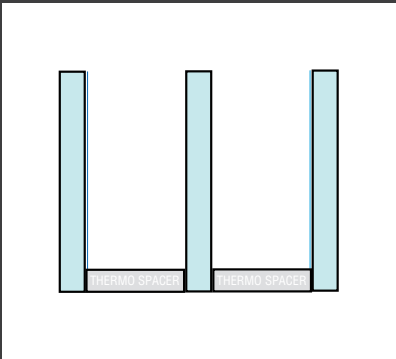


2.002
Door with flat threshold
Fully glazed main entrance swinging door
with fixed side light

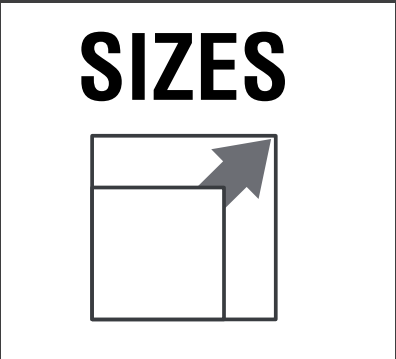


2.002
Door with flat threshold
Main entrance swinging door
full slab with side light

FULL CHOICE OF ACCESSORIES



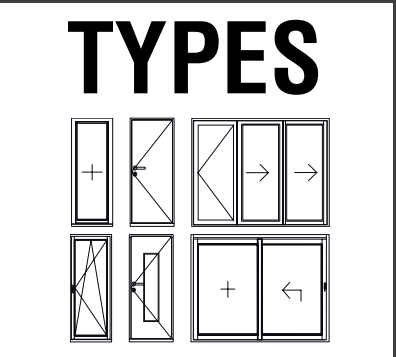
Triple glazing with best glass fiber spacer



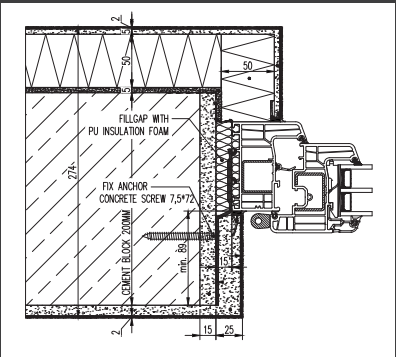
Customer-specific sizes



Magnetic contacts for open/closed monitoring



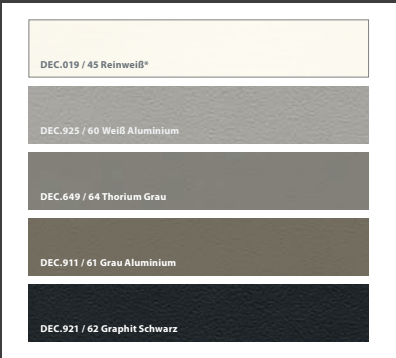
Product types catalog



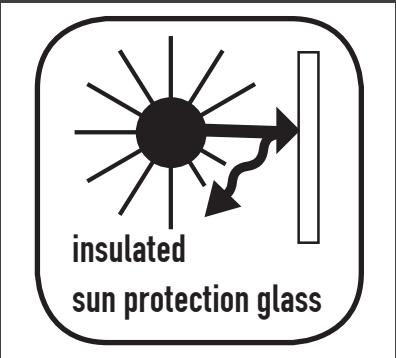
Planning service for window wall connection



Various uPVC and Alu- clade colors



FX foils - Architecture colors



Insulated sun protection glass



* Optional in gray basic body



Standard exposed hinges



fully concealed hinges



Handle choice:
Standard or customized

„With ENERGATE windows you get the best value
for a great price“

Customer's review from a Bergen.

- We are specialized in product consulting tailored to your needs for all norwegian regions
- We care for meeting the highest energy standards at the highest quality level
- ENERGATE products are tested since years in extreme climatic conditions
- We take care of a professional service

Ludwig International GmbH

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Colonge · Germany

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