



**SOLARCHITECTURE**  
building solutions



# Stadtwerke Konstanz Customer Center



**Address**

Max-Stromeyer-Strasse 21a, 78467 Konstanz, Germany



**Location**

47°40'30" N | 9°09'45" E



**Altitude**

401 MAMSL

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# The Energy Cube

This new customer center is a four-storey building that generates more energy than it consumes. Energy is produced by the sun, thanks to the large-sized photovoltaic modules integrated on the south facade, and through earth, with a geothermal plant that allows to heat and cool the building. The shape of the cube is chosen as the most energetically optimal geometry for a building. The opaque fields of the other three facades are equipped with glass panes on the outside and acoustic panels on the inside. The east and north facades are equipped with LED lamps, which illuminate the building in different colors at night.



Night view of the building, alongside the transparent PV modules there are also opaque surfaces that can be illuminated at will using different colored-LEDs.



Semi-transparent photovoltaic modules were used on the south facade and on the skylight above the stairwell. Credits: Ertex Solar.

## Energy

Active solar surface	–	230 m <sup>2</sup>
Active solar surface ratio	–	>75 %
Peak power	–	24.54 kWp
Building skin application	Skylight	Warm facade

## Energy production

n/a

## Self - consumption

n/a





# Building characteristics

**Building typology**

Administrative

**Energy reference surface**

800 m<sup>2</sup>

**Construction type**

New

**Energy index**

n/a

**Year of construction**

2011

**Energy labelling**

n/a



The south facade of the building is covered with semitransparent photovoltaic elements. The 3.00×4.00 m glass-glass modules are custom-made and weigh more than one ton.

## BIPV module

**Product**

Ertext Solar 17 VSG-ISO  
Laminated safety/insulating glass module

**Cell colour**

Black

**Manufacturer**

Ertext Solar

**Dimensions**

2,988×3,911 mm

**Cell technology**

Mono-crystalline

**Specific power**

1,246 kWp



## Parties involved

### Owner

Stadtwerke Konstanz GmbH

### Architect

Arnold Wild

### Photovoltaic installer

Lindner Group, Arnstorf, Germany

### Specialist planner

Ertex Solar GmbH

### Photo

Stadtwerke Konstanz GmbH

## Awards, recognitions & info.

### Awards and recognitions

n/a

### Building costs

abt. 3,000,000 €

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