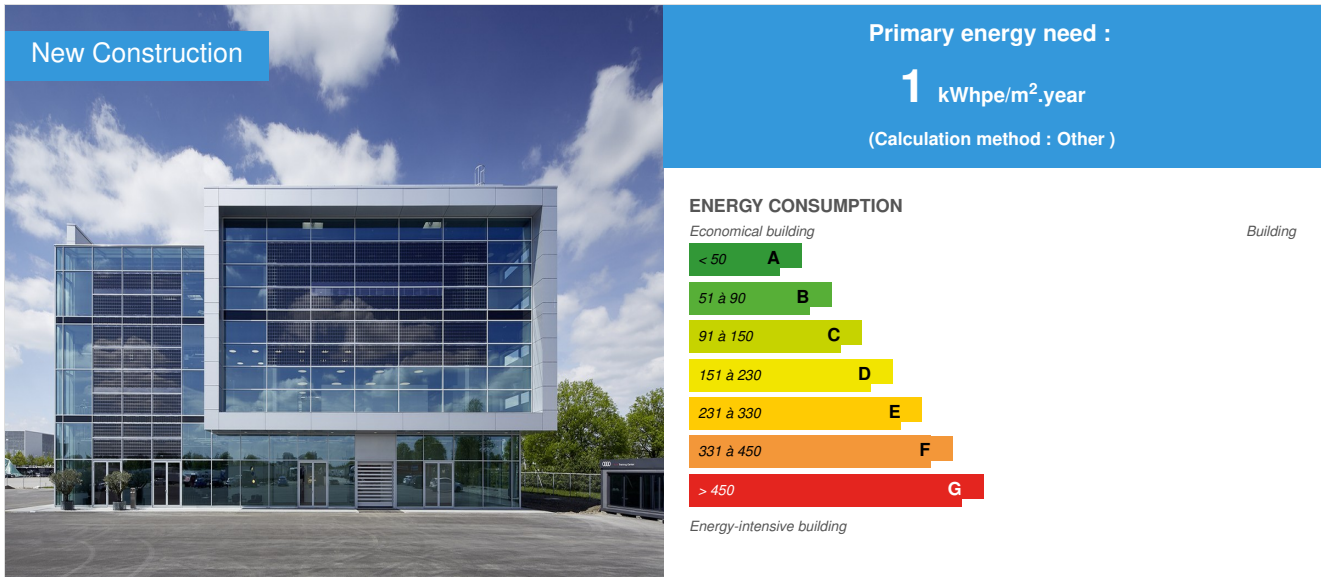


AUDI Brand Experience Center [EN]

by [Michaela Fink](#) / 2021-03-24 16:12:50 / Deutschland / 3485 / DE



Building Type : Other commercial buildings
Construction Year : 2018
Delivery year : 2019
Address 1 - street : Wartungssalle 5 85356 MÜNCHEN-FLUGHAFEN, Deutschland
Climate zone : [Dfb] Humid Continental Mild Summer, Wet All Year

Net Floor Area : 3 580 m² Other
Construction/refurbishment cost : 9 423 355 €
Cost/m2 : 2632.22 €/m²

General information

The guiding principle of the German car manufacturer Audi is "Vorsprung durch Technik" (means: "Advantage through technology"). The company stands for sporty vehicles, high-quality workmanship and advanced design. Audi AG was founded in 1899 and focuses on continuous improvement. For Audi AG, it goes without saying that modern architecture must not only be attractive, but also sustainable.

In 2018, a new Brand Experience Center was built at the airport in Munich, where Audi AG employees can be trained on the one hand and which will serve as an event venue on the other. A modern and sustainable building was to be constructed in which employees can receive extensive training. The result is a cube, 30 by 30 metres in dimensions, which was designed as a free-floating space supported only by four interior columns. Due to the fact that it is the first building at the airport in Munich to generate solar energy with the help of building-integrated photovoltaics, it is a perfect example of Audi's pioneering role in technology.

At the new venue, employees get to know the new models thoroughly, can test the cars at the training ground and receive all the information they need to serve future customers as well as possible. In addition to the training activities, the building is used for other events such as press events, conferences and dealer events. For this reason, a flexible space concept was chosen with as large a usable floor area as possible and a clear ceiling height of at least 4.5m.

The new building has a futuristic appearance, especially with this - the facades of the building cube consist of approx. 450 m² of semi-transparent photovoltaic modules. In total, more than 100 custom-made panels from ertex solar, an Austrian module producer, were integrated into the façade in 32 different sizes. But the building is not only impressive from an architectural point of view; there is a holistic energy concept based on geothermal energy behind it. Pipelines are built into the floor slabs and can be used for heating and cooling. In addition, groundwater can be tapped via geothermal probes using plastic pipes and energy can be generated using heat pump technology. Furthermore, the photovoltaic façade can reduce the cooling load in summer, yet there is still a high level of light transmission due to the semi-transparency of the modules.

The energy generated is temporarily stored in two battery storage units, which Audi manufactured from second-life batteries. Afterwards, the electricity is either consumed by the building itself or used to charge electric cars, which can be charged at a total of six charging points in the building. In total, there is thus an e-charging park at Munich Airport with 78 charging points from Audi.

Data reliability

Self-declared

Photo credit

peter zauner architektur

Stakeholders

Contractor

Name : Audi AG

Contact : +49-841-89-36768

<https://www.audi.com/de.html>

Construction Manager

Name : peter zauner architektur

Contact : +49 (0) 89 307289 18

<http://www.zauner-architektur.de/>

Stakeholders

Function : Construction company

Schüco International KG

<https://www.schueco.com/de/>

facade

Function : Construction company

Reiki Stahl- und Metallbau GmbH

<https://www.reiki-metallbau.de/>

Steel and metal construction

Function : Company

ertex solartechnik GmbH

info@ertex-solar.at

<https://www.ertex-solar.at>

PV module producer

Owner approach of sustainability

For Audi AG, it is clear that modern architecture today must not only be attractive, but also sustainable. When designing the new AUDI Brand Experience Center, the first of three planned, care was taken to embody the company's values. The owners had in mind a modern and sustainable building in which employees could receive extensive training. Furthermore, Audi AG wanted to prove that economy and ecology are by no means contradictory. This is why the new Brand Experience Center is the first building at Munich Airport to generate its own solar energy with building-integrated photovoltaics and to feature a comprehensive energy and building technology concept. The building's entire air-conditioning technology is fed by geothermal energy. A concrete core temperature control system through pipes in the walls and floor slabs of the cube heats or cools the rooms.

Audi's goal is not only to operate all its production sites worldwide in a CO₂-neutral manner by 2025, but also to achieve company-wide CO₂-neutrality by 2050 at the latest. The Audi Brand Experience Center is an expression and inspiration of this attitude.

Architectural description

The decision to integrate photovoltaics into the new building was based on four aspects. Audi AG wanted to produce its own solar energy and demonstrate e-readiness and its pioneering role in technology. In addition, the company wanted to take the opportunity to demonstrate how easily sustainability can be integrated into a building.

In the future, two identical-looking modules will be built next to the first cube. The first module will be self-sufficient in terms of development and building technology. An energy centre will be located on the roof above the second level.

The façades on both sides of the Brand Experience Centre are glazed to allow free views to the east and west on the one hand and to ensure free access from both cardinal directions on the other.

Energy

Energy consumption

Primary energy need : 1,00 kWhpe/m².year

Primary energy need for standard building : 1,00 kWhpe/m².year

Calculation method : Other

More information :

The calculations were not made due to the downtime due to COVID19. The solar modules installed in the glass facades produce 42.000 kWh of electricity annually, which corresponds to the annual consumption of ten four-person households. The surplus is stored in two batteries with a capacity of 320 kilowatt hours each.

Renewables & systems

Systems

Heating system :

- Others

Hot water system :

- Heat pump

Cooling system :

- Urban network

Ventilation system :

- Natural ventilation

Renewable systems :

- Solar photovoltaic

Products

Product

semi-transparent PV-Module

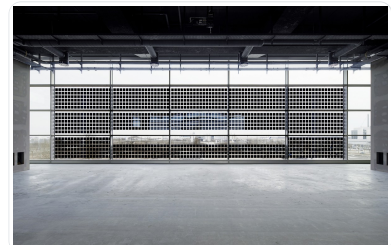
ertex solartechnik GmbH

info@ertex-solar.at

<https://www.ertex-solar.at/>

Product category :

The façade of the building was equipped with 118 modules from ertex solartechnik GmbH, which have a total output of 42 kWp. On the one hand, the modules can be used to generate their own solar power, and on the other hand, solar radiation is reduced, which has a positive effect on the indoor climate.



ertex solar produces and sells photovoltaic elements for building integration as customised individual solutions at its site in Amstetten, Austria.

The goal of harmonious building integration begins with design planning together with architects and extends to implementation planning in cooperation with leading façade builders. As one of the few providers, ertex solar can demonstrate certifications both from the world of construction and from electrical and photovoltaic technology. These are two essential building blocks for the realisation of stable systems over the long term. These certifications apply to a broad performance and product portfolio. For example, a wide variety of cells are offered, including polycrystalline, monocrystalline and semitransparent cells.

Thanks to the use of different photovoltaic cells, the possibility of installing glass up to a size of 5,100mm x 2,440mm in modules and even using different colours, photovoltaics from ertex solar are particularly interesting in solar architecture, as can be seen impressively in the example of the AUDI Brand Experience Center.

The solar modules from ertex solar are very well received by stakeholders and users. They fulfil the purpose of producing energy and reducing solar radiation and also look great.

Costs

Construction and exploitation costs

Total cost of the building : 9 423 355 €

Building Environmental Quality

Building Environmental Quality

- energy efficiency
- renewable energies
- mobility

Contest

Building candidate in the category



Alle Kategorien



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