



SUCCESS STORY

Innovative solution: Solar power generation in urban areas

In a pilot project, the first solar cycle path roofing was put into operation in the southern German city of Freiburg.



In densely populated areas, this project demonstrates the coexistence of traffic surfaces and solar energy generation with extremely durable glass-glass PV modules from the German company Solarwatt and reliable MC4 PV DC connectors from the Swiss manufacturer Stäubli.

Germany's first solar cycle path roofing was put into operation in Freiburg i.Br. in spring 2023. The joint pilot project of the City of Freiburg, the Fraunhofer Institute for Solar Energy Systems ISE, and the badenova subsidiary badenovaWÄRMEPlus offers cyclists 300 m of protection from wind and weather along the trade fair grounds. At the same

time, the 280 MWh of solar power generated - which corresponds to an annual electricity demand of more than 180 people - is used to supply energy to the laboratories and premises of the locally- based ISE.

Durable solar system components

The cycle path's solar roof is equipped with 900 translucent glass-glass solar modules from the German photovoltaic pioneer Solarwatt. The "Solarwatt Panel vision construct" modules have general building approval from the German Institute for Building Technology and are considered a regulated building product. As such, they are perfect for overhead and facade installations and

Renewable energy:

Original MC4 PV DC Steckverbinder

Application: Solar power generation in urban areas with dual land use

- Secure installation
- Robust, weather-resistant connection
- Durable, loss-free power transmission
- World's most trusted PV connector

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have translucent embedding of the solar cells. Power transmission is ensured by Stäubli's high-performance and robust MC4 PV DC connectors.

Leading photovoltaic experts

The module manufacturer Solarwatt, has also been active in photovoltaics since its beginnings just like Stäubli. With its 30 years of experience, the Dresden-based company has become a system developer and sector coupler on the German market. Solarwatt's product and service enable homeowners and businesses to reduce their energy costs and CO2 emissions by up to 80 %. Solarwatt is the European market leader with its exceptionally durable glass-glass modules.

The PV DC connectors in Stäubli's Original MC4 product portfolio are world market leaders, connecting more than 50 % of global PV capacity. Their unique contact technology is characterized by extremely low contact resistance and thus low power

loss. This ensures efficient operation as well as safe returns and the risk of downtime is minimized.

Creative solutions for a sustainable future

In order to promote independence from fossil energy sources, PV systems on building roofs and facades are not the only way to help in urban areas; sealed surfaces such as parking lots, paths, and roads can also be incorporated into solar energy projects. It is important, especially in cities to find creative solutions for the integration of photovoltaics to generate clean energy.

Benefits for customer

- Safe power transmission connection on the PV modules
- Durable PV installation
- Space-saving, environmentally friendly energy generation

About Stäubli

Stäubli stands for innovative mechatronics solutions in the electrical connectors, fluid connectors, robotics, and textile divisions. With over 6,000 employees, the company operates in 28 countries.

In the renewable energy sector, Stäubli Electrical Connectors has set the industry benchmark with its MC4 connector portfolio based on the reliable MULTILAM contact technology. Active in this market for more than 25 years, Stäubli creates the basis for sustainable change and connections for life.

www.staubli-renewable-energy.com