PHOTOVOLTAIC FAÇADE

RENOVATION

Otto von Guericke University in Magdeburg has partnered with **Onyx Solar** to carry out a comprehensive renovation of its main library, aiming to **improve the building's energy efficiency and modernize its envelope**. The project, now completed in the production phase, includes the refurbishment of the central skylight as well as the north, east, and west façades—preserving the distinctive geometry and architectural character of the original design.

A total of **278 custom photovoltaic glass units** have been manufactured for this project, using high-efficiency monocrystalline 5BB silicon cells. Each unit features a 16 mm argon-filled cavity to improve thermal insulation, reaching a **U-value of 1.1 W/m²K** for better indoor comfort. The back side of the glass has been treated with a matte PVB finish that mimics acid-etched glass, ensuring both visual consistency and glare control.

Due to the building's unique design, the project required a **wide range of non-standard sizes and shapes**, tailored to fit the existing structure with precision.

In addition to generating clean energy, the photovoltaic solution **significantly improves the building's insulation, reducing overall energy demand and reinforcing the university's commitment to sustainability**.

THE OTTO VON GUERICKE UNIVERSITY

MAGDEBURG, GERMANY

FAÇADE & SKYLIGHT

CRYSTALLINE SILICON TECHNOLOGY

TECHNICAL DATA

Nominal Power (Wp/m²)	135 Wp/m²
Visible Light Transmittance (VLT)	31%
Solar Factor (g-value)	0%
U value (W/m²K)	1.1
U value (Btu/h ft² °F)	0.19

TECHNICAL DATA SHEET