University of Applied Sciences and Arts of Southern Switzerland
Department of Environment Constructions and Design
Institute of Applied Sustainability to the Built Environment

SUPSI

Swiss BiPV Competence Centre

Warm facade

+E Kita Marburg
Vitosareal, Marburg (D)

Building Details

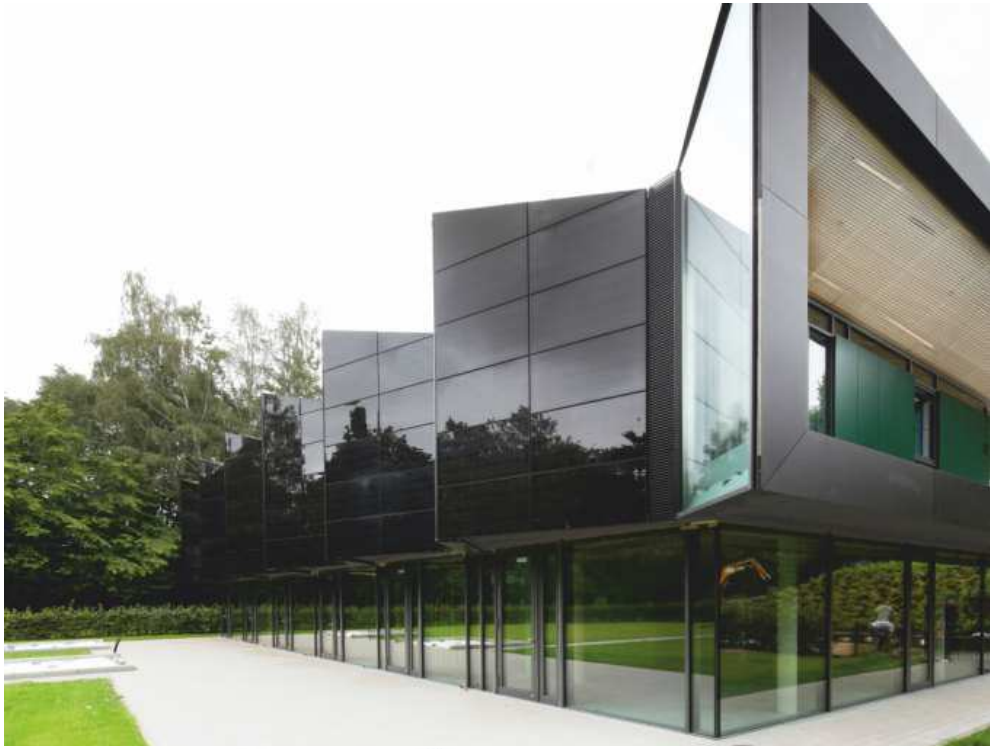
CONTACTS	Name	Website (or e-mail)
Owner	Marburg	www.marburg.de
Architect	Opus Architekten	www.opus-architekten.de
Energy Consultant	Ertex Solar GmbH	www.ertex-solar.at
PV Installer	AGEB Elektrotechnik	www.ageb.de

BUILDING				
Completion year	2013 Building		2013 Plant	
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other
Building Energy Performance	kWh/m² y			

Description

This is a kindergarten realized in in the city of Marburg in central Germany.
It is characterized by a 2-storey building with concrete bearing structure and wooden roof and completely glassed façades. The architectural design is based on 5 different volumes that emerge from the flat transparent facade of the ground floor. This elements have the short lateral facade totally transparent and the main front, overlooking the garden, is realized with special laminated PV modules made by safety glass. They are black colored, perfectly integrated with the architectonic image, and fit in the complex morphology. The PV panels are realized with a special module layering including a black colored background that allows to perceive an homogeneous and uniform aspect of the building skin.

Aknowledgments



SOURCE: ertex solar

BiPV Details

LOCATION OF PLANT

Roof	Flat roof	Sloped	Curved	
Façade	Cladding	Balcony	Greenhouse	Curved
Glass	Façade	Roof	Solar shading	Canopy
Orientation	South	West	East	North
BiPV System	Warm façade			

ARCHITECTURAL EVALUATION

Color	Black
Transparency	opaque
Frame	Frameless

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	**MODULE LAYERING**	**MODULE FEATURES**	**DUMMIES**

DESCRIPTION Special dimensions of modules ; special cut in the higher part of façades; the connected belt between the cells are black colored.

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film	
PV Module	**Cells**	-		
	Module	360 Ertex solar VSG EVO 4/4 (637x1507mm)		
Power	**kWp**	55		
Size	**m²**	365		
Energy production	**kWh/year**	-		
Cost	**€/m²**	-		