

IBA DOCK

Hamburg – Germany



TRADE

Office building

The IBA DOCK is the floating exhibition and office building of the International Building Exhibition, Hamburg. The energy concept and energy technology were provided by IMMOSOLAR. The IMMOSOLAR Energy Management System (EMS) made it possible to implement a zero heating energy concept: solar thermal collectors on the roof of the IBA DOCK help a brine/water heat pump to heat the building. The heat pump takes the environmental heat it requires from the River Elbe via heat exchangers in the pontoon or directly from the solar thermal system. The heat pump's remaining electricity requirement is covered by a photovoltaic system on the roof of the IBA DOCK. This trend-setting energy technology can be viewed as part of the building exhibition.



Project data

Property type:	Office building
Year of construction:	2009
Gross floor area (GFA):	1600 m ²
System:	EMS with geothermal brine source
Completion:	2009
Use:	Heating, cooling, hot water
Components:	Brine/water heat pump 44 kW, solar thermal system 16 x IS PRO 2H, brine source in pontoon, photovoltaic system 14.4 kWp
Special features:	Floating office building, zero heating energy concept, use of the pontoon as a heat source, monitoring via PC control
Energy savings:	64,600 kWh/year (without solar electricity)
Reduction in CO ₂ emissions:	9125 kg CO ₂ /year (without solar electricity)
Regenerative portion of energy demand:	100%