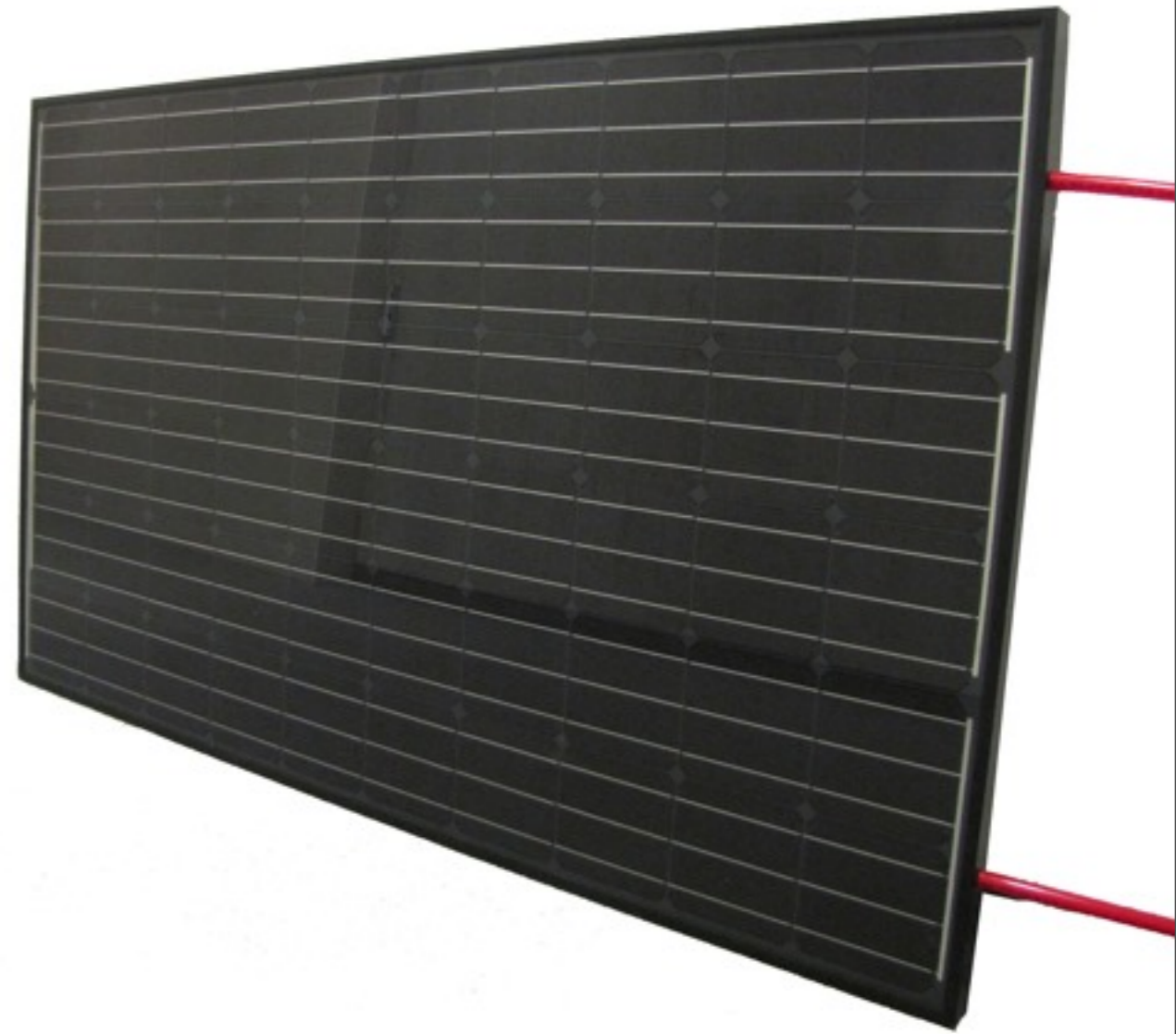


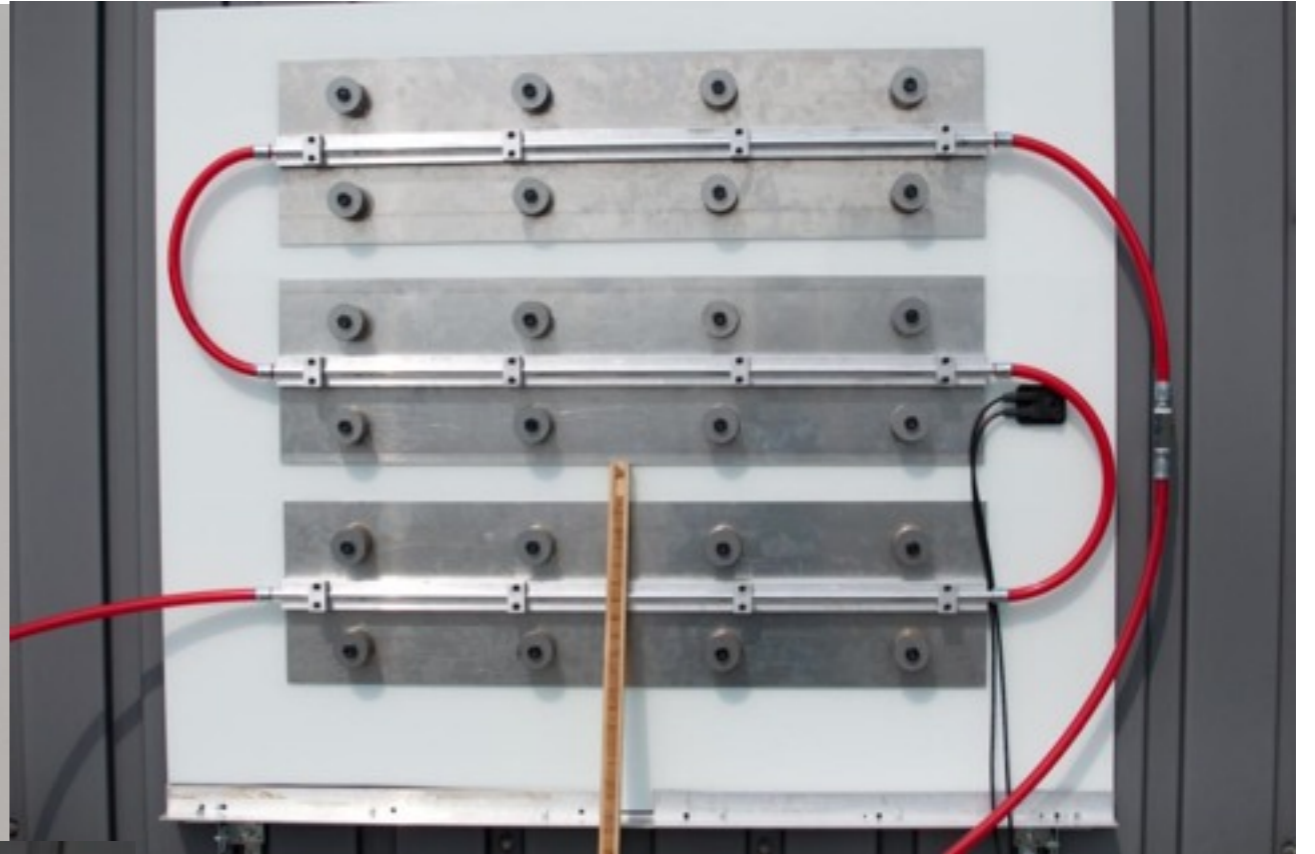
# hybrid solar collector

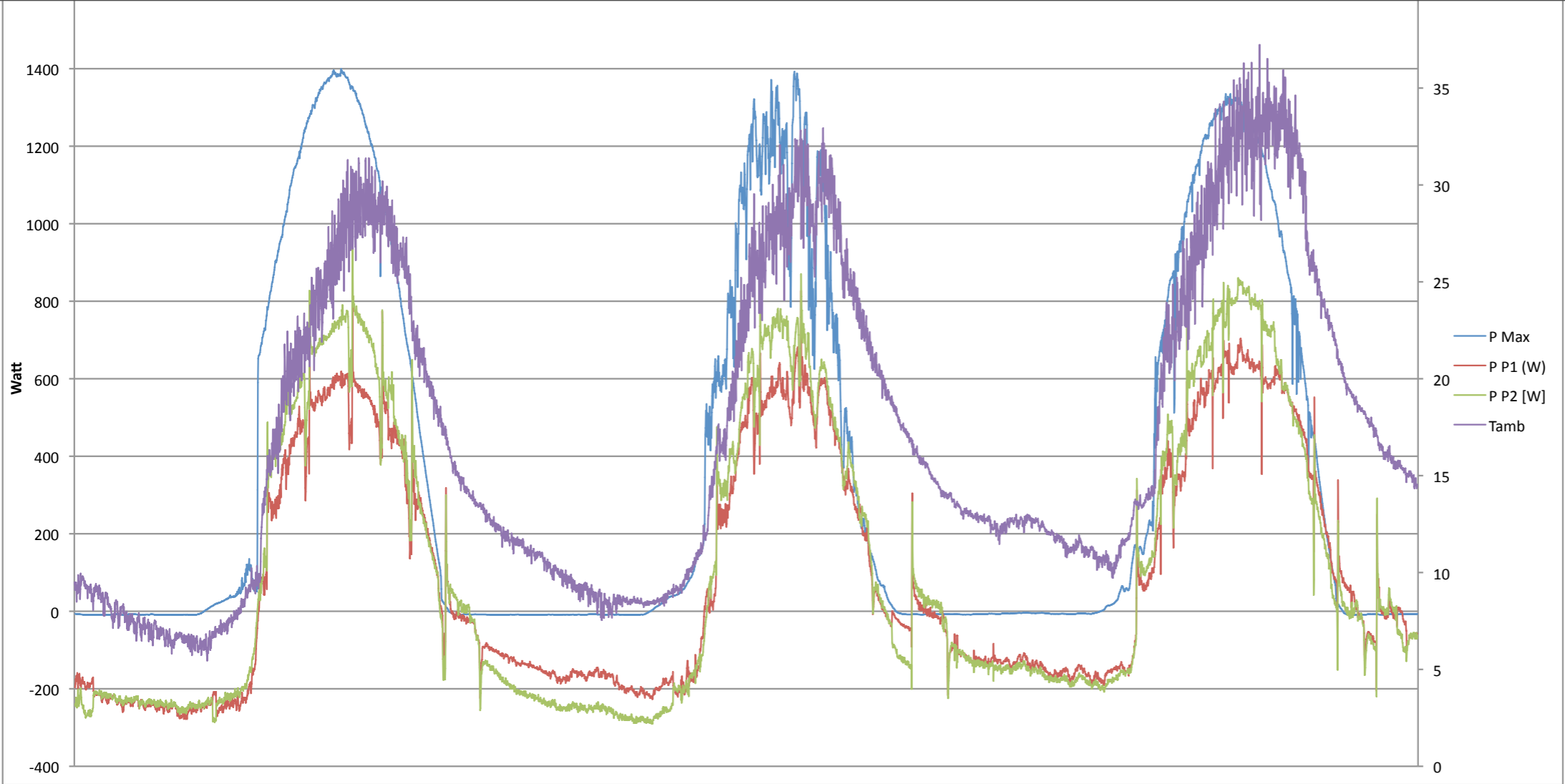
**Marc Bättschmann**

**Professur für Gebäudetechnik**

**26. November 2010**

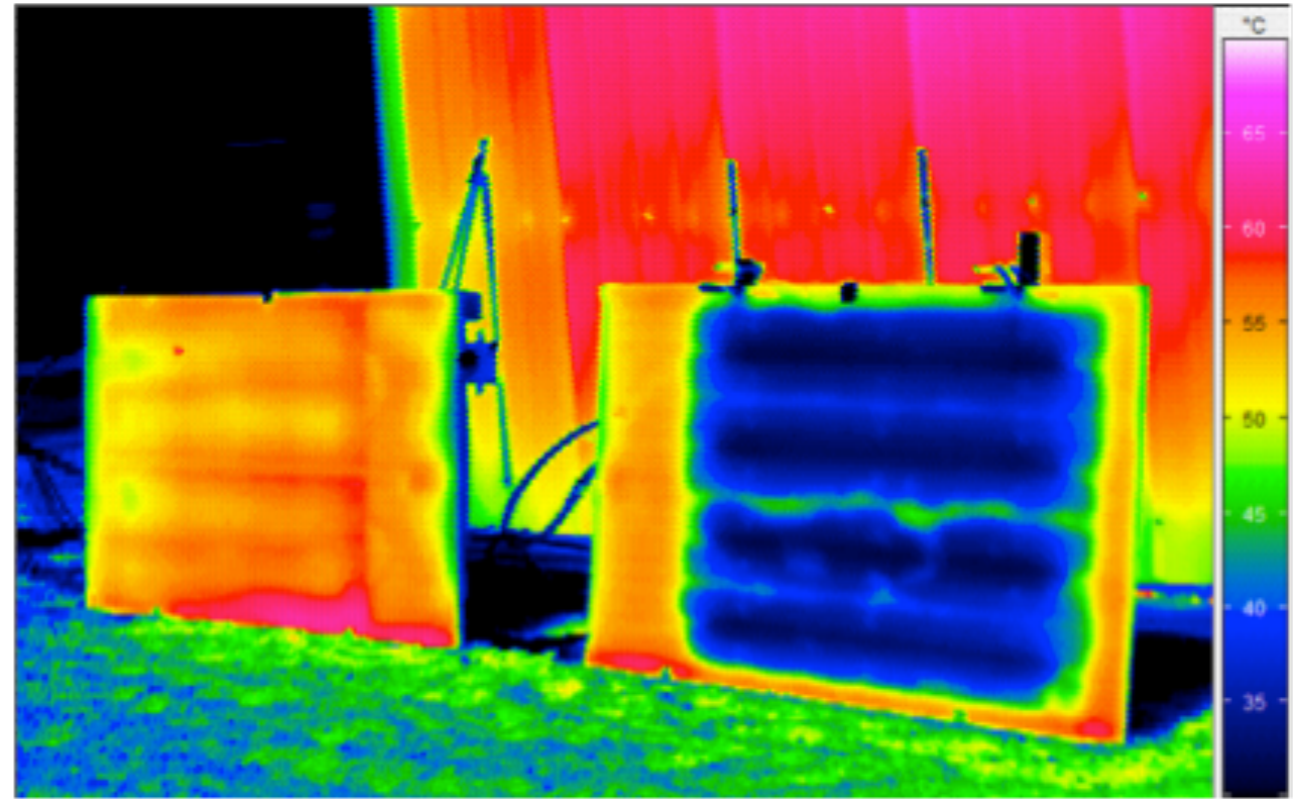






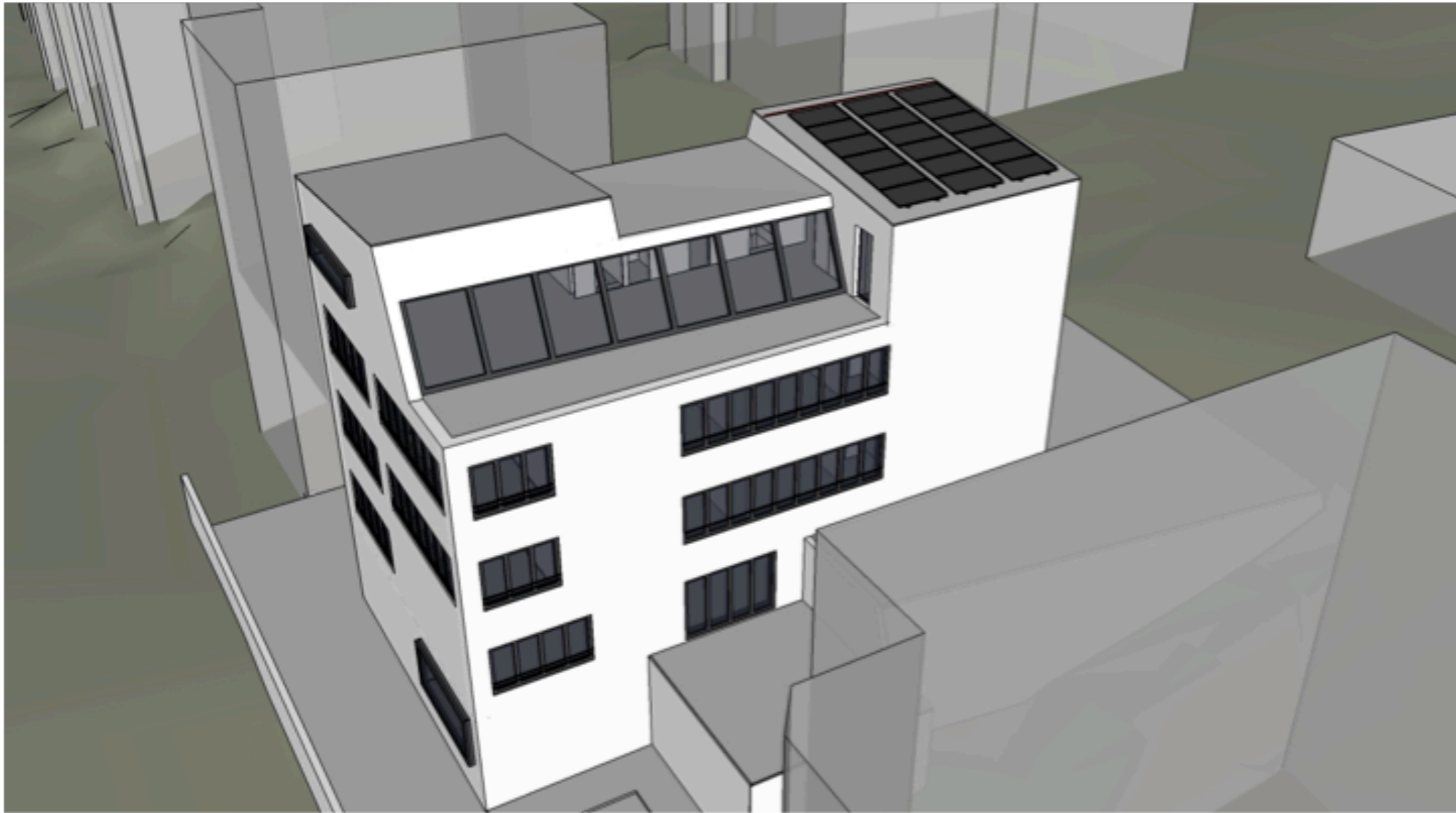
# collector data

area	1.66 m <sup>2</sup>
weight	33 kg
thermal performance	860 Wp
electrical performance	230 Wp
thermal efficiency	50 - 55 %
electrical efficiency	14 %



increased electrical performance up to 25 % -> 310 kWh/m<sup>2</sup> -> 62 CHF/m<sup>2</sup>

## B35 - PVT Anlage

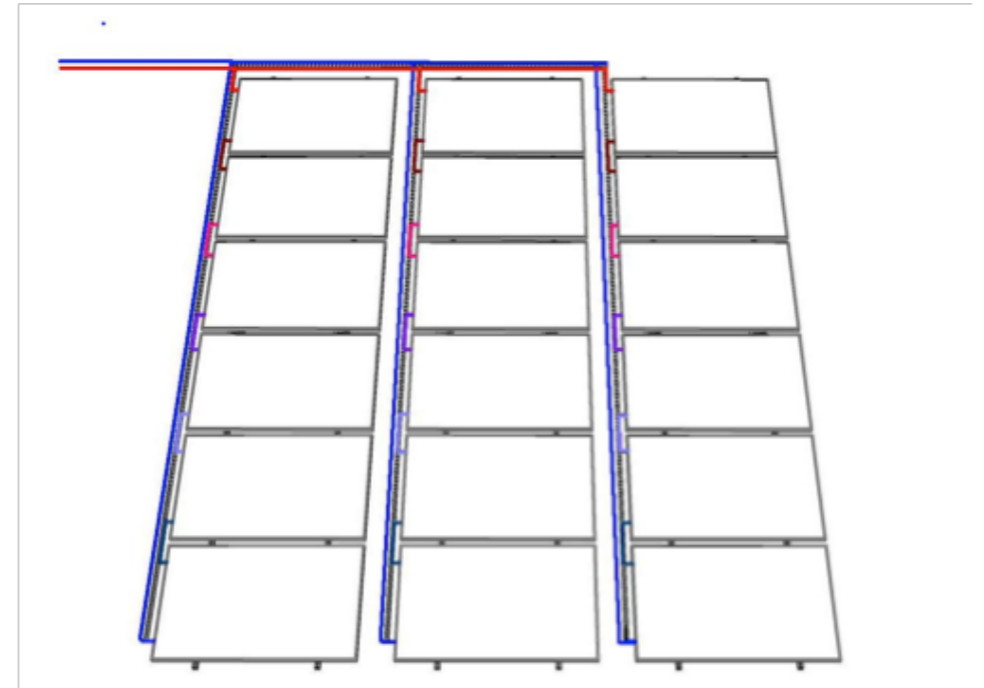


- 18 framed collectors
- 30 m<sup>2</sup> area
- 4.2 kWp electrical performance
- 14.5 kWp thermal performance

# B35 - electrical and hydraulic design

- hydraulic design:

- 3 serial circuits of 6 collectors with each 160l/h
- summer: VL 17°C and RL 37°C
- winter: VL 6°C and RL 16°C
- craftsman connects modules
- plumber starts operation



- electrical design:

- 2 serial circuits of 9 collectors with 2 inverters
- craftsman connects modules
- electrician connects inverter

