

# TECHNOLOGY SPECIFICATIONS



### Power generation

Heating: Combined Heat and Power Unit (CHP)

- Fuelled by local timber shavings
- Local district heating network

Photovoltaic (PV) Installation:

Photovoltaic system: 445 kWp

Orientation: South

Inclination: 22°

Grid connected



### Vacuum insulation panels

- U-Value: 0.26 W/m<sup>2</sup>K



### Natural ventilation unit

lowtech night-time cooling flap



The Solar Estate

The Sun Ship

Penthouse on the Sun Ship



### Daylight usage and passive solar heating

Timber curtain wall:

- U-Value: 0.55 W/m<sup>2</sup>K
- G-Value: 0.60 W/m<sup>2</sup>K

Timber windows (Triple paned units):

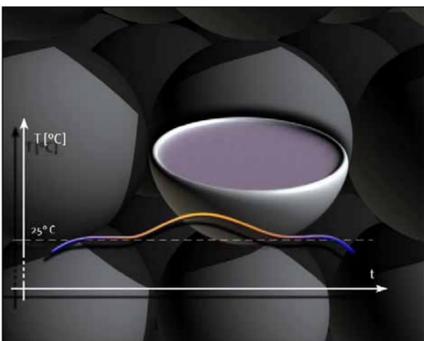
- U-Value: 0.70 W/m<sup>2</sup>K
- G-Value: 0.60 W/m<sup>2</sup>K



### Mechanical ventilation unit

Ventilation with 90% heat recovery

- Decentralized



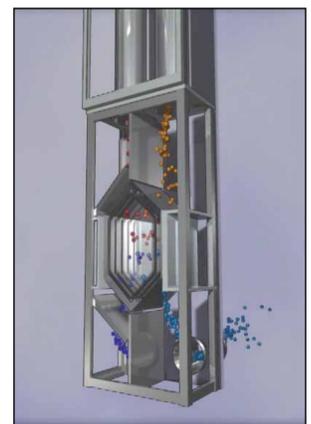
### Phase Changing Material (PCM)

Interior Walls filled with Phase Changing Material (PCM)



### Green roof

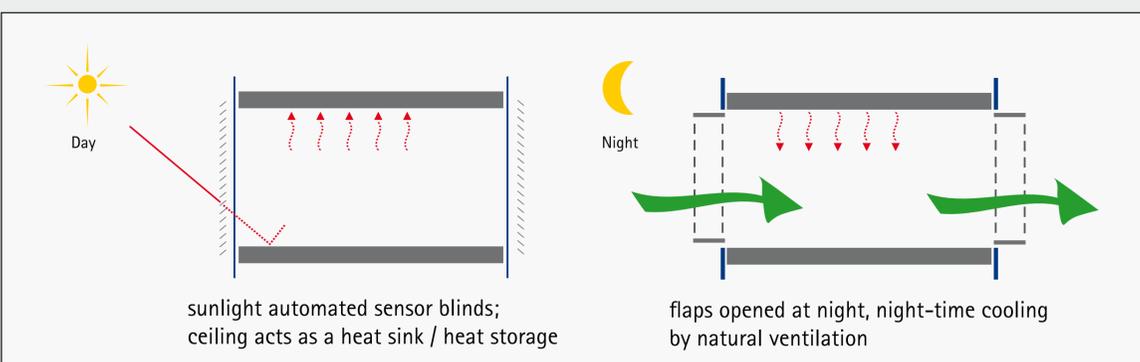
with integrated rainwater recycling



### Cross-type heat exchanger

Function scheme

### Summer - ventilation and cooling system



### Winter - ventilation and heating system

