



Demo Factsheet for IEA ES Task 43

“Storage for renewables and flexibility through standardized use of building mass”, Subtask D



Picture of Demo building

Building Name

solar.one

Location/Country

7551 Stegersbach, Austria

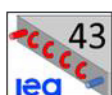
Submitting contact information

**Name, E-mail, Institution*

Manuel Baumgartner

m.baumgartner@aee.at

AEE INTEC



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Building information

Building type

- ☒ New construction
- ☐ Renovation/retrofit
- ☐ Prototype/Test building

Year of construction

*for renovation year of renovation

2020

Usage category

*e.g. residential, office, tertiary etc.
office, café, conference rooms

Total conditioned floor area [m²]

*total area conditioned with heat and/or cold

1.427 m²

Total energy consumption [kWh/m²a] and supply temperatures [°C]

*Electricity refers to the energy supply systems. If possible, exclude household electricity.

Heating	50 kWh/m ² a	temperature	Flow/Return
Hot water	4,7 kWh/m ² a	temperature	Flow/Return
Cooling	28,4 kWh/m ² a	temperature	18/20 °C
Electricity	24,6 kWh/m ² a		

Energy supply systems

*please list all supply systems (e.g. heat pumps, boilers, the electricity grid), including power ratings for locally deployed technologies

- Heat:** 4 x 20 kW reversible air heat pumps
direct resistance heating for hot water
- Cold:** 4 x 20 kW reversible air heat pumps
- Electricity:** grid, 178 kWp PV

Installed energy storage systems

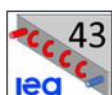
* please list all energy storage options besides activated building mass, including their capacities (e.g. hot water buffer, battery etc.)

- Heat:** 1.500 liter hot water buffer
- Cold:** 1.500 liter cold water buffer
- Electricity:** battery storage

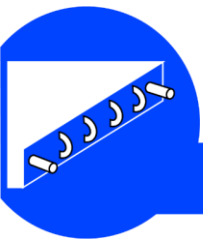
Other conditioning systems besides TABs [multiple choice]

- ☐ Radiators
- ☒ Conventional floor heating
- ☐ Other:
- ☒ Ventilation
- ☐ Wall heating

Klicken oder tippen Sie hier, um Text einzugeben.



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Dimension of total installed thermal activated building mass [m^2/m^3]

*use one or both of the metrics depending on which information is available

Area [m^2]:

700 m^2

Volume [m^3]:

Klicken oder tippen Sie hier, um Text einzugeben.

Location of thermal activated building mass integration

- ☐ Floor
- ☐ Wall
- ☒ Ceiling
- ☐ Other:

Klicken oder tippen Sie hier, um Text einzugeben.

Material(s) used

concrete

Functional role of thermal activated building mass [multiple choice]

- ☐ Heating
- ☒ Cooling
- ☐ Energy storage

Is the thermal activated building mass used for flexibility services?

- ☒ **No. Because of:**
 - ☐ No need for additional storage
 - ☒ Lack of awareness or lack of information on the topic
 - ☐ Lack of social acceptance
 - ☐ Technical feasibility
 - ☒ Financial feasibility
 - ☐ Other reasons

- ☐ **Yes. Please describe the use case below:**

Klicken oder tippen Sie hier, um Text einzugeben.

Optional additional information

*e.g. further details about the building and its function, feedback from users, residents or owners, project homepage, studies or other information that is not covered by the factsheet