



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

Steiner Haustechnik KG

Location/Country

5101 Bergheim, Austria

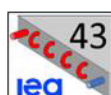
Submitting contact information

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Building information

Building type

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

Year of construction

*for renovation year of renovation

2017

Usage category

*e.g. residential, office, tertiary etc.
 office, storage, showroom

Total conditioned floor area [m²]

*total area conditioned with heat and/or cold

15.000 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	35/28 °C
Hot water	4,7 kWh/m ² a	temperature	Flow/Return
Cooling	22,8 kWh/m ² a	temperature	16/18,4 °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:** 3 x 90 kW reversible brine/water heat pumps
 decentral heating for hot water with extra heat pump
Cold: 3 x 90 kW reversible brine/water heat pumps
Electricity: grid, 100 kWp PV

Installed energy storage systems

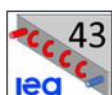
* please list all energy storage options besides activated building mass, including their capacities (e.g. hot water buffer, battery etc.)

- Heat:** 2.000 liter hot water buffer
Cold: 1.000 liter cold water buffer
Electricity: Klicken oder tippen Sie hier, um Text einzugeben.

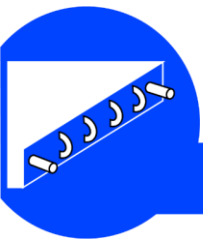
Other conditioning systems besides TABs [multiple choice]

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

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]:

14.000 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
total energy consumption regarding only the office building (3.300 m^2)