

 Region:
 Piedmont
 Archetype code:

 Building category:
 Residential buildings - Apartments (in multifamily blocks)
 RES_APPBLOCK_1931-1940_E_PIE

 Period of construction:
 1931-1940
 1940_E_PIE

 Climatic zone:
 E
 Number of records:
 14591

Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014):

<u>External walls</u>: solid brick masonry (cod. MLP01). <u>Roof slabs</u>: concrete floor slab (cod. SOL06).

Data sources: EPC databases (100%)

| | Data | Symbol | Unit of | Mean | Standard | Q1 (first | Median | Q3 (third | | | |
|--------------------------|--|---|-----------------------------------|--|-----------|-----------|--------|-----------|--|--|--|
| | | | measure | value | deviation | quartile) | value | quartile) | | | |
| BUILDING GEOMETRY | Number of floors | n _f | - | - | - | - | - | - | | | |
| | Gross height | Hg | m | - | - | - | - | - | | | |
| | Footprint area | A _{footprint} | m² | - | - | - | - | - | | | |
| | Heated gross floor area | A _{H;g} | m² | - | - | - | - | - | | | |
| | Heated net floor area | $A_{H;n}$ | m² | - | - | - | - | - | | | |
| | Heated gross volume | $V_{H;g}$ | m³ | - | - | - | - | - | | | |
| | Heated net volume | $V_{H;n}$ | m³ | - | - | - | - | - | | | |
| | Compactness ratio | A _{env} /V _{H;g} | m ⁻¹ | 0.58 | 3.04 | 0.31 | 0.55 | 0.72 | | | |
| | WWR – North orientation | WWR _N | - | - | - | - | - | - | | | |
| Ē | WWR – South orientation | WWR _S | - | - | - | - | - | - | | | |
| | WWR – East orientation | WWRE | - | - | - | - | - | - | | | |
| | WWR – West orientation | WWR _W | - | - | - | - | - | - | | | |
| | Window to useful floor area ratio | A _{wi} /A _{use} | - | 0.31 | 15.08 | 0.12 | 0.16 | 0.19 | | | |
| | Roof type - | | | | | | | | | | |
| | <i>U</i> -value of the roof | U _{fl;up} | W/(m ² ·K) | - | - | - | - | - | | | |
| 3 6 | External walls type | Solid Brick masonry: 79%; Hollow brick masonry: 18%; Unknown: 3% | | | | | | | | | |
| | <i>U</i> -value of the wall | U_{wl} | W/(m²·K) | - | - | - | - | - | | | |
| ĒĽ | Slab on ground floor type | - | | | | | | | | | |
| ENVELOPE | <i>U</i> -value of the floor | U _{fl;lw} | W/(m²·K) | - | - | - | - | - | | | |
| | Windows type | - | | | | | | | | | |
| | <i>U</i> -value of the windows | U _W | W/(m ² ·K) | 3.23 | 1.25 | 2.26 | 3.10 | 4.35 | | | |
| | Shading system type | - | | | | | | | | | |
| _ z | Occupancy density * | O _C | person/m² | m ² UNI EN 16798-1 - Table A.19 | | | | | | | |
| GAINS and VENTILATION | Lighting power density * | W_{L} | W/m ² | UNI EN 16798-1 - A.8.3 | | | | | | | |
| NS E | Equipment power density * | W _A | W/m ² | UNI EN 16798-1 - A.8.3 | | | | | | | |
| GAI | Type of ventilation | | | Natural: 100% | | | | | | | |
| 0 5 | Air exchange rate * | n | h ⁻¹ | 0.30 | 0.00 | 0.30 | 0.30 | 0.30 | | | |
| | Heating system type | | Autonomous: 62%; Centralized: 38% | | | | | | | | |
| THERMAL SYSTEMS | Heating generator | - | | | | | | | | | |
| | Daily operating time of the heating system * | t _H | h | 14.00 | 0.00 | 14.00 | 14.00 | 14.00 | | | |
| | Energy carrier | Natural Gas: 80%; Electricity: 7%; District heating: 5%; Solid biomass: 4%; LPG: 2%; Gas Oil: 2% | | | | | | | | | |
| | Heating emission sub-system | - | | | | | | | | | |
| | Cooling system type | | | | - | | | | | | |
| | Daily operating time of the cooling system * | t _C | h | - | - | - | - | - | | | |
| | Cooling emission sub-system | - | | | | | | | | | |
| | DHW system type | Autonomous, coupled with heating: 46%; Autonomous, detached from heating: 42%; Centralized, coupled with heating: 10%; Centralized, detached from heating: 2% | | | | | | | | | |
| | DHW generator | - | | | | | | | | | |
| | * These values are derived from UNI EN ISO Standards | | | | | | | | | | |



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The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.



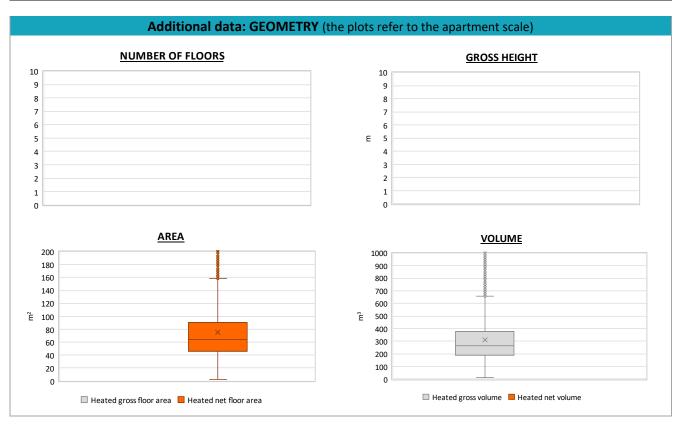
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| ADDITIONAL DATA | | | | | | | | | | | |
|-------------------------|---|--|-----------------|---|--------------------|------------------------|-----------------|---------------------|--|--|--|
| | Data | Symbol | Unit of measure | Mean value | Standard deviation | Q1 (first quartile) | Median value | Q3 (third quartile) | | | |
| GEOMETRY: apartments | Inter-storey height | H _n | m | - | - | - | - | - | | | |
| | Heated gross floor area | A _{H;g} | m ² | - | - | - | - | - | | | |
| | Heated net floor area | A _{H;n} | m ² | 75.5 | 47.2 | 45.8 | 63.6 | 90.9 | | | |
| | Heated gross volume | V _{H;g} | m³ | 313.0 | 203.1 | 188.9 | 262.5 | 376.5 | | | |
| 0 10 | Heated net volume | V _{H;n} | m³ | - | - | - | - | - | | | |
| THERMAL SYSTEMS | Heating efficiency or COP | η _{H;gen} or COP _{H;gen} | - | This value has to be retrieved from suitable datasheets | | | | | | | |
| | Total heating power * | P _{H;gen} | kW | 23.4 | 6.3 | 23.3 | 24.0 | 25.8 | | | |
| | Cooling efficiency or EER | η _{C;gen} or <i>EER</i> _{C;gen} | - | This value has to be retrieved from suitable datasheets | | | | | | | |
| | Total cooling power * | P _{C;gen} | kW | 5.2 | 5.0 | 2.7 | 3.5 | 5.3 | | | |
| | Temperature of DHW | ϑ_{W} | °C | 40.0 | 0.0 | 40.0 | 40.0 | 40.0 | | | |
| | DHW system power * | P _{W;gen} | kW | 18.1 | 10.2 | 10.0 | 23.5 | 24.1 | | | |
| | * These values refer to the apartment s | | | | | | | | | | |





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