

(cod. CIN04).

Region: Piedmont Archetype code: **Building category:** Non-residential buildings - Offices OFF_1951-1960_E_PIE **Period of construction:** 1951-1960 Climatic zone: **Number of records:** Ε Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): Data sources: EPC databases (100%) External walls: hollow brick masonry with air gap (cod. MCV01). Roof slabs: reinforced concrete floor slab for non-walkable flat roof (cod. COP01) or for pitched roof

| | 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} | m ² | - | - | - | - | - | | |
| | Heated net floor area | A _{H;n} | m ² | 1405.5 | 3011.7 | 89.8 | 253.0 | 854.4 | | |
| | Heated gross volume | V _{H;g} | m³ | 5510.0 | 11425.5 | 384.8 | 1110.0 | 3602.2 | | |
| | Heated net volume | V _{H;n} | m³ | - | - | - | - | - | | |
| و | Compactness ratio | A _{env} /V _{H;g} | m ⁻¹ | 0.66 | 0.31 | 0.43 | 0.59 | 0.73 | | |
| | WWR – North orientation | WWR _N | - | - | - | - | - | - | | |
| Ĭ | WWR – South orientation | WWR _S | - | - | - | - | - | - | | |
| | WWR – East orientation | WWR _E | - | - | - | - | - | - | | |
| | WWR – West orientation | WWR _w | - | - | - | - | - | - | | |
| | Window to useful floor area ratio | A _{wi} /A _{use} | - | 0.19 | 0.07 | 0.14 | 0.18 | 0.24 | | |
| | Roof type | - | | | | | | | | |
| ENVELOPE | <i>U</i> -value of the roof | U _{fl;up} | W/(m²⋅K) | - | - | - | - | - | | |
| | External walls type | Hollow brick masonry: 65%; Solid Brick masonry: 21%; Unknown: 9%; Prefabricated panels: 4%; Concrete wall: 1% | | | | | | | | |
| | <i>U</i> -value of the wall | U _{wl} | W/(m²·K) | - | - | - | - | - | | |
| | Slab on ground floor type | | | | - | | | | | |
| | <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/(m²·K) | 3.53 | 1.38 | 2.43 | 3.33 | 4.61 | | |
| | 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/m² | UNI EN 16798-1 - A.8.3 | | | | | | |
| NS I | Equipment power density * | W _A | W/m² | UNI EN 16798-1 - A.8.3 | | | | | | |
| SAII | Type of ventilation | - | | | | | | | | |
| Ŭ ₩ | Air exchange rate * | n | h ⁻¹ | - | - | - | - | - | | |
| | Heating system type | | | Autonomous: 100% | | | | | | |
| | Heating generator | - | | | | | | | | |
| | Daily operating time of the heating system * | t _H | h | 14.00 | 0.00 | 14.00 | 14.00 | 14.00 | | |
| Ν | Energy carrier | Natural Gas: 90%; Electricity: 6%; Solid biomass: 2%; LPG: 2% | | | | | | | | |
| THERMAL SYSTEMS | Heating emission sub-system | - | | | | | | | | |
| | Cooling system type | | | | - | | | | | |
| | Daily operating time of the cooling system * | t _C | h | - | - | - | - | - | | |
| | Cooling emission sub-system | | | 1 | - | | <u> </u> | 1 | | |
| | DHW system type | Autonomous, detached from heating: 45%; Autonomous, coupled with heating: 21%; Centralized, coupled with heating: 21%; Centralized, detached from heating: 13% | | | | | | | | |
| | DHW generator | - | | | | | | | | |
| | - | nese values are derived from UNI EN ISO Standards | | | | | | | | |

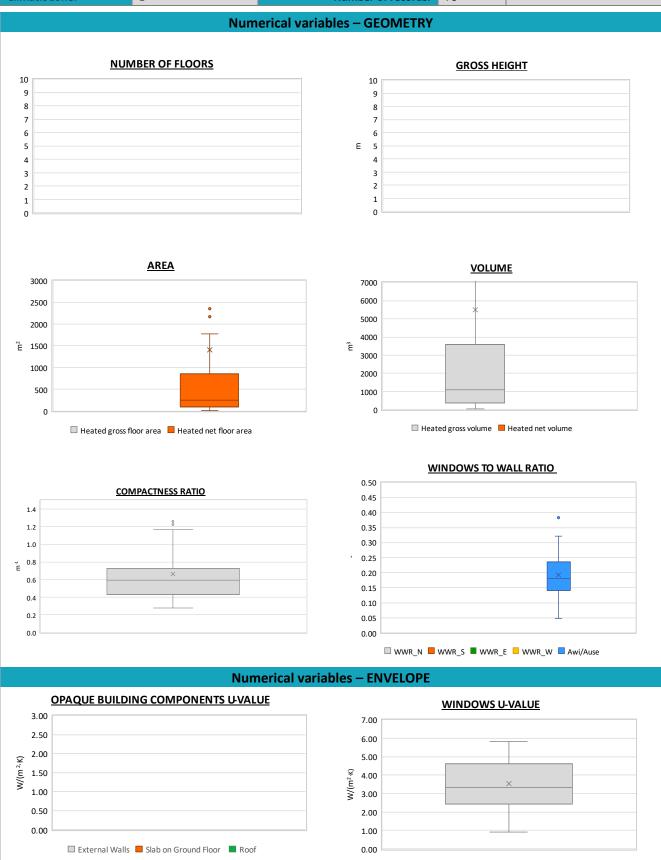


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The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.



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| ADDITIONAL DATA | | | | | | | | |
|-----------------|---------------------------|--|-----------------|---|--------------------|---------------------|-----------------|---------------------|
| | Data | Symbol | Unit of measure | Mean value | Standard deviation | Q1 (first quartile) | Median value | Q3 (third quartile) |
| THERMAL SYSTEMS | Heating efficiency or COP | η _{H;gen} or <i>COP</i> _{H;gen} | - | This value has to be retrieved from suitable datasheets | | | | |
| | Total heating power | P _{H;gen} | kW | 321.4 | 966.9 | 25.0 | 65.4 | 190.0 |
| | Cooling efficiency or EER | $\eta_{	extsf{C};	extsf{gen}}$ or $	extsf{\textit{EER}}_{	extsf{C};	extsf{gen}}$ | - | This value has to be retrieved from suitable datasheets | | | | |
| | Total cooling power | P _{C;gen} | kW | 260.7 | 844.1 | 8.5 | 33.5 | 96.0 |
| | Temperature of DHW | ϑ_{W} | °C | 40.0 | 0.0 | 40.0 | 40.0 | 40.0 |
| É | DHW system power | P _{W;gen} | kW | 127.6 | 676.0 | 1.5 | 13.6 | 28.0 |

Numerical variables - GAINS, VENTILATION and SYSTEMS USAGE **AIR CHANGE RATE OCCUPACY DENSITY** 5.00 0.30 4.50 0.25 4.00 3.50 0.20 3.00 2.50 🛓 0.15 2.00 0.10 1.50 1.00 0.05 0.50 0.00 0.00 **DAILY OPERATING TIME INTERNAL GAINS POWER DENSITY** 14 10 12 9 8 10 5 6 4 3 2 2 1 0 ☐ Heating ☐ Cooling



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