

Climatic zone:

Region:PiedmontArchetype code:Building category:Residential buildings - Single family housesRES\_SINGLE\_1931-1940\_F\_PIEPeriod of construction:1931-19401940\_F\_PIE

Number of records:

452

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

External walls: solid brick masonry (cod. MLP01). Roof slabs: pitched wooden roof (cod. CIN05).

F

Data sources: EPC databases (100%)

**Data Symbol** Unit of Mean **Standard** Q1 (first Median Q3 (third measure value deviation quartile) value quartile) Number of floors  $n_{\rm f}$ Gross height  $H_g$ m Footprint area  $A_{footprint}$  $m^2$  $m^2$ Heated gross floor area  $A_{H;g}$ **BUILDING GEOMETRY** Heated net floor area  $A_{H;\underline{n}}$ 95.5 52.5 83.6 119.1 m<sup>2</sup> 61.0 Heated gross volume  $m^3$ 388.9 234.3 238.6 337.3 480.7  $V_{\rm H;g}$ Heated net volume  $V_{H;n}$  $m^3$ Compactness ratio  $A_{\rm env}/V_{\rm H;g}$  $m^{-1}$ 0.86 0.22 0.73 0.85 0.99 WWR - North orientation  $WWR_{\text{N}}$ \_ \_ WWR - South orientation WWR<sub>S</sub> WWR - East orientation WWR<sub>E</sub> WWR - West orientation  $WWR_W$ Window to useful floor area 0.17 0.07 0.12 0.16 0.21  $A_{wi}/A_{use}$ ratio Roof type U-value of the roof  $U_{fl;\underline{up}}$  $W/(m^2 \cdot K)$ External walls type Solid Brick masonry: 87%; Hollow brick masonry: 6%; Unknown: 7% ENVELOPE U-value of the wall  $W/(m^2 \cdot K)$  $U_{\rm wl}$ Slab on ground floor type *U*-value of the floor  $U_{fl;\underline{lw}}$  $W/(m^2 \cdot K)$ Windows type U-value of the windows  $U_{\mathsf{W}}$  $W/(m^2 \cdot K)$ 3.40 1.29 2.52 3.23 4.39 Shading system type UNI EN 16798-1 - Table A.19 Occupancy density \* person/m<sup>2</sup>  $O_{C}$ /ENTILATION Lighting power density \* W/m<sup>2</sup> UNI EN 16798-1 - A.8.3  $W_{\mathsf{L}}$ Equipment power density \* UNI EN 16798-1 - A.8.3  $W_A$ W/m<sup>2</sup> Type of ventilation Natural: 100% h-1 Air exchange rate \* 0.30 0.00 0.30 0.30 0.30 n Autonomous: 100% Heating system type Heating generator Daily operating time of the No limitation  $t_{\mathsf{H}}$ heating system \* **THERMAL SYSTEMS** Natural Gas: 66%; Solid biomass: 19%; LPG: 8%; Electricity: 5%; Gas Oil: 2% **Energy carrier** Heating emission sub-system Cooling system type Daily operating time of the h  $t_{\mathsf{C}}$ cooling system \* Cooling emission sub-system Autonomous, coupled with heating: 42%; Autonomous, detached from heating: 31%; Centralized, DHW system type coupled with heating: 23%; Centralized, detached from heating: 4% DHW generator

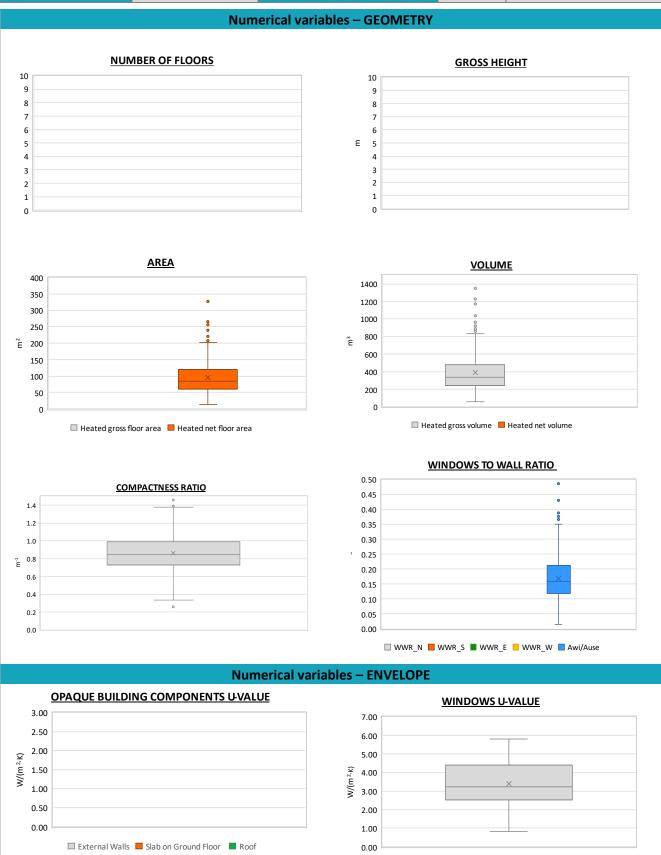
\* These values are derived from UNI EN ISO Standards



 Region:
 Piedmont
 Archetype code:

 Building category:
 Residential buildings - Single family houses
 RES\_SINGLE\_1931-1940 - 1940\_F\_PIE

 Climatic zone:
 F
 Number of records: 452



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.



 Region:
 Piedmont
 Archetype code:

 Building category:
 Residential buildings - Single family houses
 RES\_SINGLE\_1931-1940 - 1940\_F\_PIE

 Climatic zone:
 F
 Number of records: 452

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 <sub>H;gen</sub> or <i>COP</i> <sub>H;gen</sub>	-	This value has to be retrieved from suitable datasheets							
	Total heating power	P <sub>H;gen</sub>	kW	22.4	9.7	18.1	24.0	26.0			
	Cooling efficiency or EER	$\eta_{C;gen}$ or $\mathit{EER}_{C;gen}$	-	This value has to be retrieved from suitable datasheets							
	Total cooling power	P <sub>C;gen</sub>	kW	11.0	0.0	11.0	11.0	11.0			
	Temperature of DHW	$\vartheta_{W}$	°C	40.0	0.0	40.0	40.0	40.0			
É	DHW system power	P <sub>W;gen</sub>	kW	27.8	122.4	1.5	22.9	24.5			

## Numerical variables - GAINS, VENTILATION and SYSTEMS USAGE **AIR EXCHANGE RATE OCCUPACY DENSITY** 0.30 5.00 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 **INTERNAL GAINS POWER DENSITY DAILY OPERATING TIME** 10 14 12 8 10 7 8 6 5 4 3 2 2 1 $\square$ Heating $\blacksquare$ Cooling



Region:	Archetype code:			
Building category:	Residential buildings - Si		RES_SINGLE_1931-	
Period of construction:	1931-1940	1940_F_PIE		
Climatic zone:	F	Number of records:	452	

