

Region:
Liguria
Archetype code:

Building category:
Residential buildings – Single family houses
RES_SINGLE_
-1950_C_LIG

Climatic zone:
C
Number of records: 3432

Description: Data sources:

External walls: no data available Roof slabs: no data available

EPC databases (100%)

	Data	Symbol	Unit of	Mean	Standard	Q1 (first	Q2 (Median	Q3 (third			
BUILDING GEOMETRY			measure	value	deviation	quartile)	value)	quartile)			
	Number of floors	n _f	-	-	-	-	-	-			
	Gross height	Hg	m	-	-	-	-	-			
	Footprint area	A _{footprint}	m ²	-	-	-	-	-			
	Heated gross floor area	A _{H;g}	m ²	-	-	-	-	-			
	Heated net floor area	A _{H;n}	m ²	-	-	-	-	-			
	Heated gross volume	V _{H;g}	m³	-	-	-	-	-			
	Heated net volume	V _{H;n}	m³	-	-	-	-	-			
	Compactness ratio	A _{env} /V _{H;g}	m ⁻¹	0.71	2.39	0.42	0.63	0.85			
	WWR – North orientation	WWR _N	-	-	-	-	-	-			
B.	WWR – South orientation	WWR _S	-	-	-	-	-	-			
_	WWR – East orientation	WWR _E	-	-	-	-	-	-			
	WWR – West orientation	<i>WWR</i> _w	-	-	-	-	-	-			
	Window to useful floor area ratio	A _{wi} /A _{use}	-	0.12	0.13	0.09	0.10	0.12			
	Roof type				-						
	<i>U</i> -value of the roof	U _{fl;up}	W/(m²⋅K)	1.43	0.74	0.86	1.56	1.83			
	External walls type				-						
)PE	<i>U</i> -value of the wall	$U_{ m wl}$	W/(m²⋅K)	1.72	0.64	1.23	1.70	2.22			
Ē	Slab on ground floor type	-									
ENVELOPE	<i>U</i> -value of the floor	U _{fl;lw}	W/(m²·K)	1.72	0.63	1.41	1.62	1.92			
	Windows type	-									
	<i>U</i> -value of the windows	Uw	W/(m²⋅K)	3.94	1.22	2.95	4.13	4.90			
	Shading system type				-						
7	Occupancy density *	O _C	O _C person/m ² UNI EN 16798-1 - Table A.19								
GAINS and VENTILATION	Lighting power density *	W∟	W/m²	UNI EN 16798-1 - A.8.3							
GAINS and ENTILATIO	Equipment power density *	W _A	W/m ² UNI EN 16798-1 - A.8.3								
SAII NT	Type of ventilation		Natural: 99%; Mechanical: 1%								
~ <u>~</u>	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30			
	Heating system type			Unkn	own: 94%; Aı	utonomous: 6	%				
THERMAL SYSTEMS	Heating generator	Unknown: 45%; Traditional boiler: 38%; Condensing boiler: 8%; Air-source heat pump: 6%; Fireplace: 3%									
	Daily operating time of the heating system *	t _H	h	10	0	10	10	10			
	Energy carrier	Unknown: 44%; Natural gas: 36%; Electricity and natural gas: 7%; Electricity: 7%; LPG: 2%; Electricity and solid biomass: 2%; Gas Oil: 1%; Solid biomass: 1%									
	Heating emission sub-system	Radiators: 46%; Unknown: 45%; Fan-coil: 4%; Air Ducts: 3%; Radiant panels: 1%; Convectors: 1%									
	Cooling system type	Unknown: 91%; Heat pump air-air: 7%; Heat pump air-water: 1%; Other: 1%									
	Daily operating time of the cooling system *	tc	h	-	-	-	-	-			
	Cooling emission sub-system	-									
	DHW system type	-									
	DHW generator	Unknown: 74%; Electric boiler: 13%; Condensing boiler: 8%; Electric heat pump: 3%; Natural gas boiler: 2%									
	* These values were not availal	able in the considered sources, and are thus derived from UNI EN Standards									



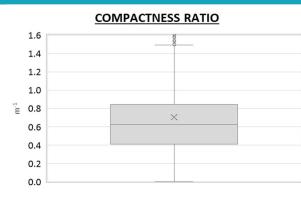
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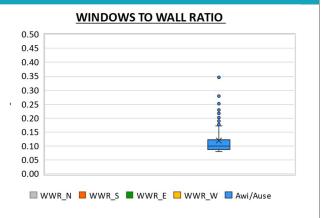
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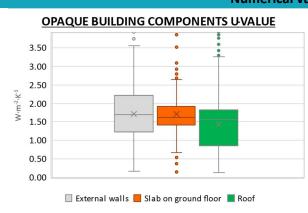
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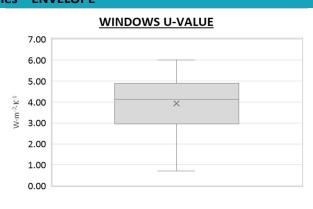
Numerical variables – GEOMETRY



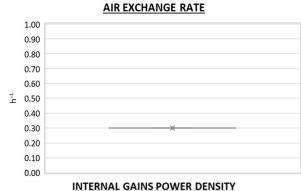


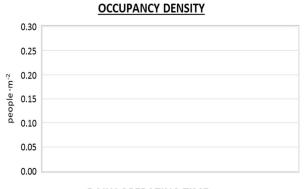
Numerical variables – ENVELOPE

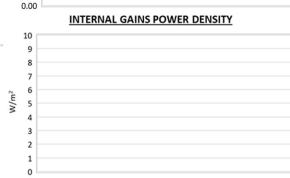




Numerical variables - GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)









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.



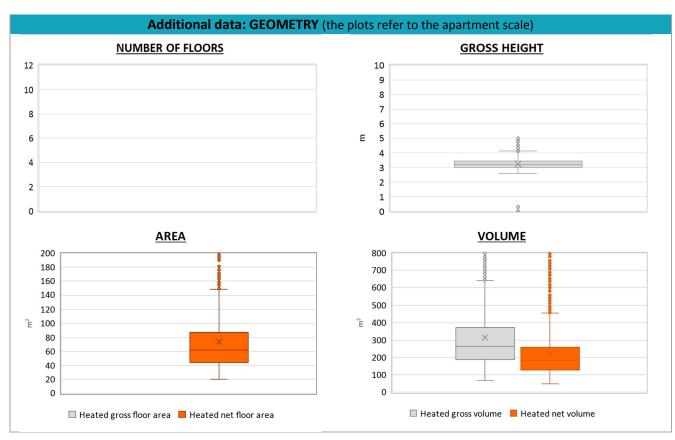
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ADDITIONAL DATA											
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)			
GEOMETRY: apartments	Inter-storey height	H _n	m	3.3	0.4	3.0	3.2	3.5			
	Heated gross floor area	A _{H;g}	m²	-	-	-	-	-			
	Heated net floor area	A _{H;n}	m ²	73.7	49.6	44.5	62.0	86.5			
	Heated gross volume	V _{H;g}	m³	316.8	221.4	187.8	263.0	369.9			
	Heated net volume	V _{H;n}	m³	221.7	161.1	128.3	183.6	259.7			
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	22.0	7.4	23.1	24.0	24.3			
	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	-	-	-	-	-			
	Temperature of DHW	θ_{W}	°C	-	-	-	-	-			
	DHW system power *	P _{W;gen}	kW	18.4	10.2	8.6	24.0	24.0			
	* These values refer to the apartment scale										







NOTE: Sample size of the analysed data.

Compactness ratio: 3380; Window to useful floor area ratio: 407; U-value of the roof: 864; U-value of the wall: 3057; U-value of the floor: 308; U-value of the windows: 3432; Inter-storey height: 3415; Heated net floor area: 3415; Heated gross volume: 3378; Heated net volume: 3380; Total heating power: 1410; DHW system power: 2219; CO2 Emission: 3342; EP_H_nren: 3413; EP_W_nren: 3125; EP_GL_nren: 3402; EP_H_ren: 2028; EP_W_ren: 1712