

 Region:
 Calabria
 Archetype code:

 Building category:
 Residential buildings – Apartments (in multifamily blocks)
 RES_APPBLOCK_1961-1970_E_CAL

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 E
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 49

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

External walls: double layer of hollow bricks (12 cm + 12 cm) with uninsulated air gap (cod. MCV01).

Roof slabs: no data available

Data sources: Survey data (47%) EPC databases (15%) Expert assumptions (11%) Others (27%) #

		ı					Otners (27%) #			
	Data	Symbol	Unit of	Mean	Standard	Q1 (first	Median	Q3 (third		
BUILDING GEOMETRY	Number of floors	_	measure	value	deviation	quartile)	value	quartile)		
	Number of floors	n _f	-	1.78	0.87	1.00	2.00	2.00		
	Gross height	Hg	m m ²	-	-	-	-	-		
	Footprint area	A _{footprint}		-	-	-	-	-		
	Heated gross floor area	A _{H;g}	m ²	-	-	-	-	-		
	Heated net floor area	A _{H;n}	m ²	-	-	-	-	-		
	Heated gross volume	V _{H;g}	m ³	-	-	-	-	-		
	Heated net volume	V _{H;n}	m³	-	-	-	-	-		
	Compactness ratio	A _{env} /V _{H;g}	m ⁻¹	0.59	0.16	0.43	0.63	0.70		
	WWR – North orientation	WWR _N	-	0.19	0.14	0.08	0.16	0.27		
BU	WWR – South orientation	WWR _S	-	0.16	0.09	0.08	0.17	0.20		
	WWR – East orientation	WWR _E	-	0.23	0.14	0.13	0.22	0.30		
	WWR – West orientation	<i>WWR</i> _w	-	0.20	0.12	0.07	0.21	0.31		
	Window to useful floor area ratio	A _{wi} /A _{use}	-	0.15	0.05	0.11	0.14	0.19		
	Roof type									
	U-value of the roof	11	\\//m2.K\	1 16	0.50	0.52	1 22	1 66		
	0-value of the roof	Ufi;up W/(m²·K) 1.16 0.58 0.52 1.23 1.66 Hollow brick masonry: 47%, Concrete wall: 25%, Solid brick masonry: 10%, Masonry with local stones:								
	External walls type	6%, Medium density stone masonry (dry density from 1300 to 2000 kg/m³): 2%, Unknown: 10%								
Ä	<i>U</i> -value of the wall	U _{wl}	W/(m ² ·K)	0.93	0.51	0.44	0.98	1.29		
9	Slab on ground floor type				-					
ENVELOPE	<i>U</i> -value of the floor	U _{fl;lw}	W/(m ² ·K)	1.21	0.37	1.10	1.29	1.38		
	Windows type	Double glazing, wooden frame: 29%, Double glazing, aluminum frame with thermal break: 24%, Double glazing, aluminum frame, no thermal break: 18%, Double glazing, PVC frame: 11%, Single glazing, wooden frame: 10%, Single glazing, aluminum frame: 8%								
	<i>U</i> -value of the windows	Uw	W/(m ² ·K)	3.38	1.16	2.80	2.95	3.70		
	Shading system type	OW	Shutter: 42%, Roller blinds: 40%, No shading: 8%, Curtains: 5%, Unknown: 5%							
_	Occupancy density	O _C	person/m²	0.036	0.013	0.022	0.036	0.050		
GAINS and VENTILATION	Lighting power density	W _L	W/m ²	4.36	2.66	2.17	3.71	6.27		
IS al LAT	Equipment power density *	W _A	W/m ²	7.50	2.00			0.27		
GAINS and ENTILATIO	Type of ventilation	WA W/m² UNI EN 16798-1 - A.8.3 Natural: 100%								
G VEI	Air exchange rate *	n	h-1	0.30	0.00	0.30	0.30	0.30		
	Heating system type	"						0.50		
	Heating generator	Autonomous: 96%, Centralized: 4% Traditional Boiler: 53%, Fireplace: 35%, Condensing Boiler: 8%, Unknown: 4%								
ИS	Daily operating time of the heating system	t _H	h	8.56	3.88	6.00	8.00	10.00		
	Energy carrier	Natural Gas: 51%, Solid biomass: 35%, Electricity: 8%, LPG: 2%, Unknown: 4%								
Ë	Heating emission sub-system	Radiators: 95%, Fan coil: 5%								
SYS	Cooling system type	Absent: 100%								
THERMAL SYSTEMS	Daily operating time of the				71036111.	10070				
	cooling system	t _C	h	-	-	-	-	-		
	Cooling emission sub-system				-					
	DHW system type	Autonomous, coupled with heating: 64%, Autonomous, detached from heating: 36%								
	DHW generator	Natural gas boiler: 64%, Electric boiler: 36%								
	# Standards (11%), Measured data (10%), Municipal database (6%).									
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards									

(c) (1) (a)

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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☐ Heating ■ Cooling

☐ Lighting ■ Equipment

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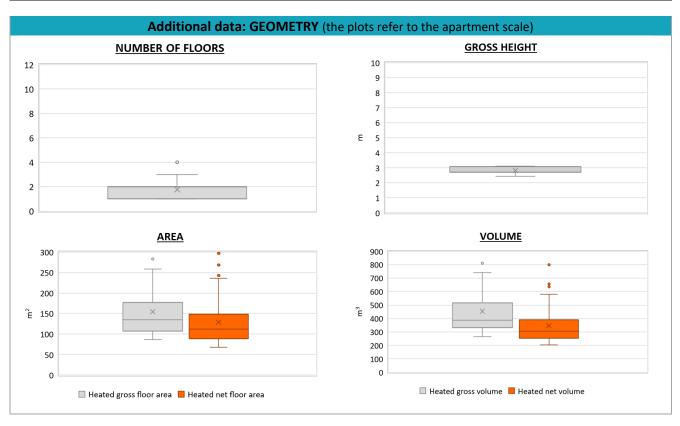
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ADDITIONAL DATA												
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)				
GEOMETRY: apartments	Inter-storey height	H _n	m	2.82	0.18	2.70	2.70	3.08				
	Heated gross floor area	A _{H;g}	m ²	154.64	64.03	107.47	134.32	176.83				
	Heated net floor area	A _{H;n}	m ²	128.83	55.02	88.24	112.53	148.62				
	Heated gross volume	V _{H;g}	m³	453.38	174.95	332.94	387.79	515.06				
0 6	Heated net volume	V _{H;n}	m³	346.60	134.39	253.98	306.19	389.99				
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	23.44	8.42	23.00	24.00	28.00				
	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	40.00	0.00	40.00	40.00	40.00				
≐	DHW system power *	P _{W;gen}	kW	13.53	11.69	1.50	18.00	24.00				
	* These values refer to the apartment s	cale										





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