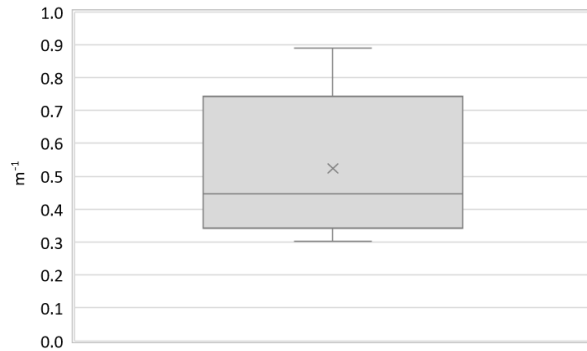


Region:	Calabria						Archetype code: RES_APPBLOCK_ 1981-1990_B_CAL	
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1981-1990							
Climatic zone:	B	Number of records:		6				
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: double layer of hollow bricks (12 cm + 25 cm) with uninsulated air gap (cod. MCV01). Roof slabs: no data available							Data sources: Survey data (52%) Measured data (16%) Expert assumptions (12%) Others (20%) #	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	$n_f$	-	1.59	0.48	1.00	1.00	1.00
	Gross height	$H_g$	m	-	-	-	-	-
	Footprint area	$A_{\text{footprint}}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m <sup>-1</sup>	0.52	0.23	0.34	0.45	0.74
	WWR – North orientation	$WWR_N$	-	0.16	0.10	0.05	0.18	0.24
	WWR – South orientation	$WWR_S$	-	0.24	0.13	0.11	0.30	0.32
	WWR – East orientation	$WWR_E$	-	0.18	0.11	0.10	0.16	0.30
	WWR – West orientation	$WWR_W$	-	0.19	0.08	0.13	0.21	0.24
	Window to useful floor area ratio	$A_{wi}/A_{\text{use}}$	-	0.14	0.03	0.11	0.12	0.17
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{\text{fi,up}}$	W/(m <sup>2</sup> ·K)	0.82	0.39	0.46	0.78	1.19
	External walls type	Hollow brick masonry: 50%, Solid brick masonry: 50%						
	U-value of the wall	$U_{\text{wl}}$	W/(m <sup>2</sup> ·K)	0.63	0.31	0.31	0.64	0.89
	Slab on ground floor type	-						
	U-value of the floor	$U_{\text{fi,lw}}$	W/(m <sup>2</sup> ·K)	1.06	0.63	0.46	1.05	1.68
	Windows type	Double glazing, wooden frame: 33%, Double glazing, aluminum frame, no thermal break: 17%, Double glazing, PVC frame: 17%, Single glazing, wooden frame: 17%, Single glazing, PVC frame: 16%						
	U-value of the windows	$U_{\text{W}}$	W/(m <sup>2</sup> ·K)	4.75	1.48	3.75	4.75	5.81
GAINS and VENTILATION	Shading system type	Roller blinds: 50%, Shutter: 33%, Curtains: 17%						
	Occupancy density	$O_{\text{C}}$	person/m <sup>2</sup>	0.036	0.010	0.026	0.039	0.044
	Lighting power density *	$W_{\text{L}}$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Equipment power density *	$W_{\text{A}}$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
THERMAL SYSTEMS	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	0.00	0.30	0.30	0.30
	Heating system type	Autonomous: 100%						
	Heating generator	Traditional Boiler: 83%, Air-source heat pump: 17%						
	Daily operating time of the heating system *	$t_{\text{H}}$	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 50%, Gas Oil: 17%, LPG: 17%, Electricity: 16%						
	Heating emission sub-system	Radiators: 83%, Fan Coil: 17%						
	Cooling system type	Absent: 83%, Air-cooled chiller: 17%						
	Daily operating time of the cooling system *	$t_{\text{C}}$	h	8.00	0.00	8.00	8.00	8.00
	Cooling emission sub-system	Fan Coil: 100%						
	DHW system type	Autonomous – coupled with heating: 83%, Autonomous – detached from heating: 17%						
	DHW generator	Natural gas boiler: 83%, Electric boiler: 17%						
# Standards (8%), Municipal database (8%), EPC database (4%).								
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

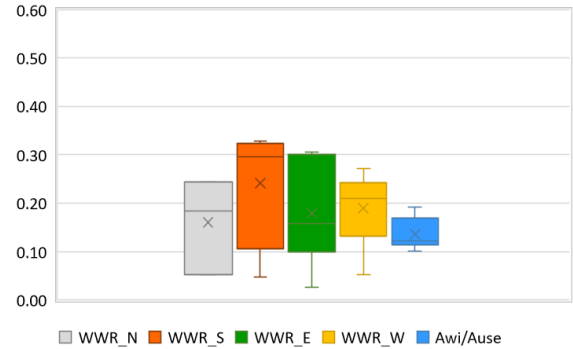
<b>Region:</b>	Calabria	<b>Archetype code:</b> RES_APPBLOCK_ 1981-1990_B_CAL
<b>Building category:</b>	Residential buildings – Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1981-1990	
<b>Climatic zone:</b>	B	
<b>Number of records:</b>		6

### Numerical variables – GEOMETRY

**COMPACTNESS RATIO**

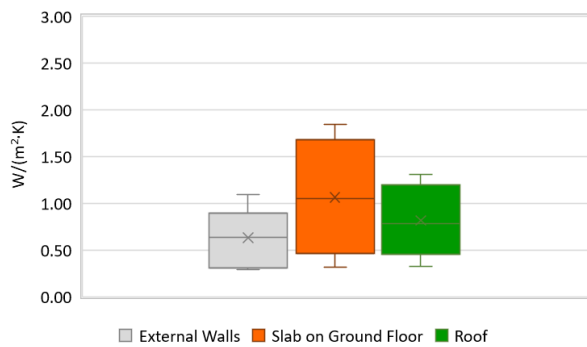


**WINDOWS TO WALL RATIO**

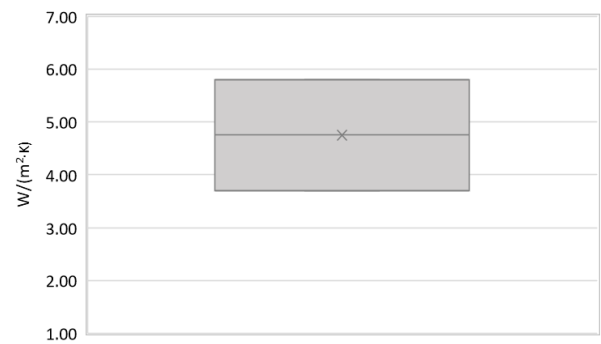


### Numerical variables – ENVELOPE

**OPAQUE BUILDING COMPONENTS U-VALUE**



**WINDOWS U-VALUE**

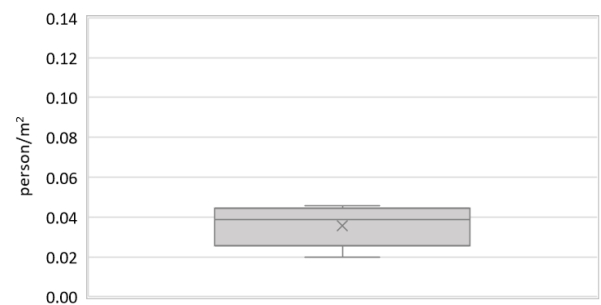


### Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

**AIR EXCHANGE RATE**



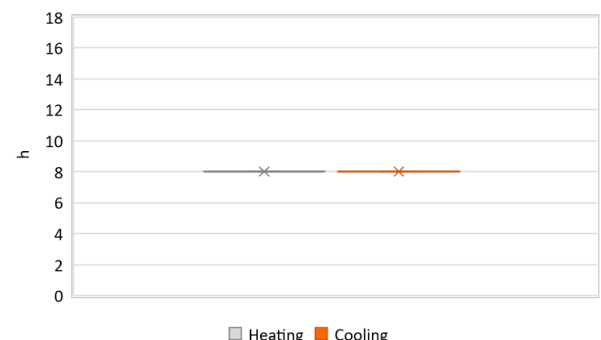
**OCCUPANCY DENSITY**



**INTERNAL GAINS POWER DENSITY**



**DAILY OPERATING TIME**



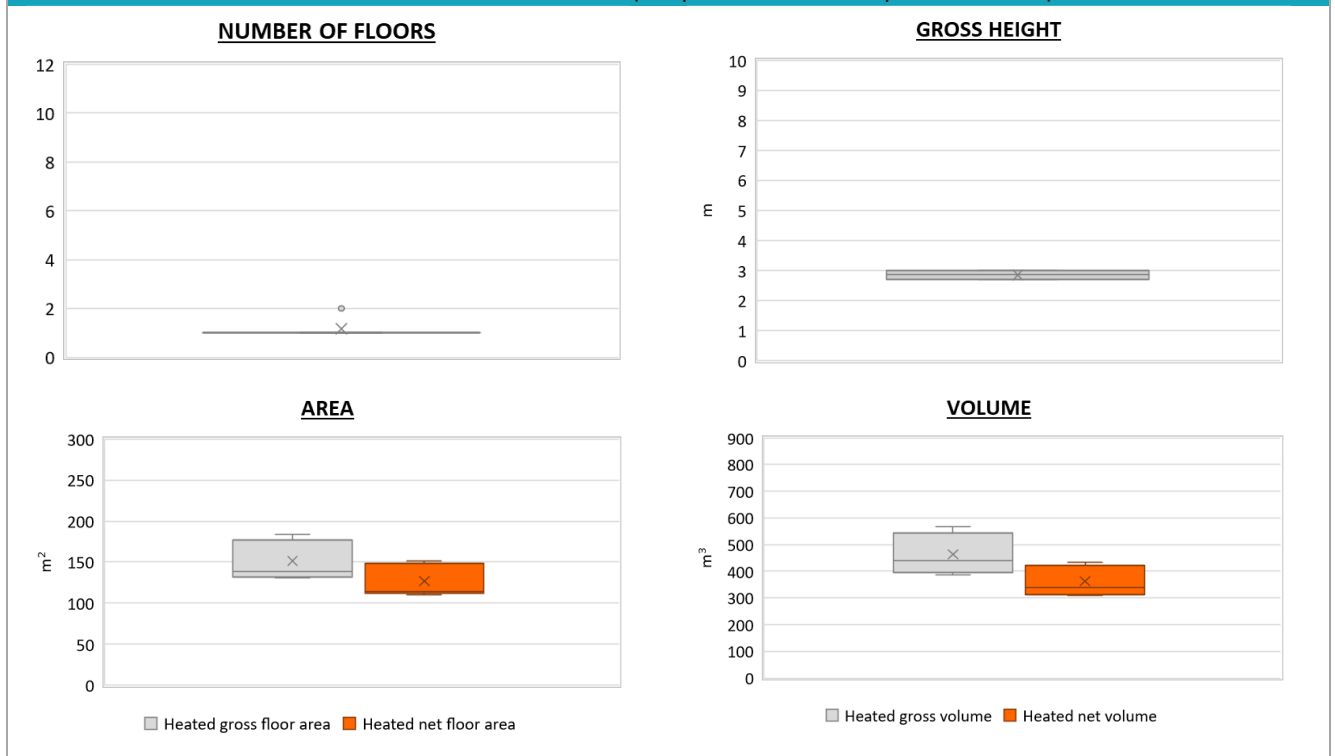
The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

Region:	Calabria			Archetype code: RES_APPBLOCK_ 1981-1990_B_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1981-1990			
Climatic zone:	B	Number of records:	6	

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	2.86	0.14	2.70	2.88	3.00
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	151.53	24.26	132.08	138.72	177.39
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	126.93	19.78	111.70	114.50	148.37
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	463.83	76.36	396.63	440.57	542.66
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	362.60	56.38	314.08	340.20	422.34
THERMAL SYSTEMS	Heating efficiency or $COP$	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H,gen}$	kW	29.22	5.28	23.65	31.10	33.85
	Cooling efficiency or $EER$	$\eta_{C,gen}$ or $EER_{C,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total cooling power	$P_{C,gen}$	kW	-	-	-	-	-
	Temperature of DHW	$\theta_W$	°C	40.00	0.00	40.00	40.00	40.00
	DHW system power	$P_{W,gen}$	kW	-	-	-	-	-

\* These values refer to the apartment scale

### Additional data: GEOMETRY (the plots refer to the apartment scale)



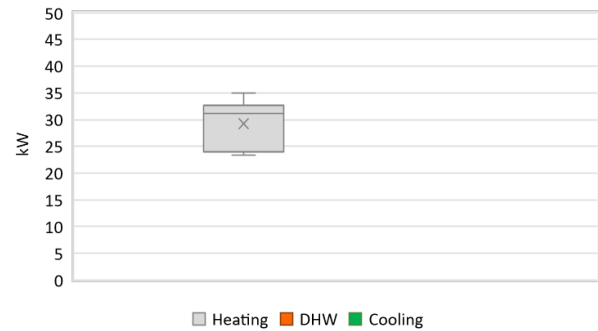
<b>Region:</b>	Calabria	<b>Archetype code:</b> RES_APPBLOCK_ 1981-1990_B_CAL
<b>Building category:</b>	Residential buildings – Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1981-1990	
<b>Climatic zone:</b>	B	
<b>Number of records:</b>		6

### Additional data: other numerical variables that are not included in the archetype

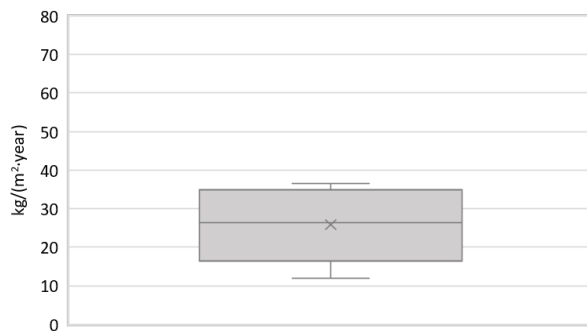
**DHW SUPPLY TEMPERATURE**



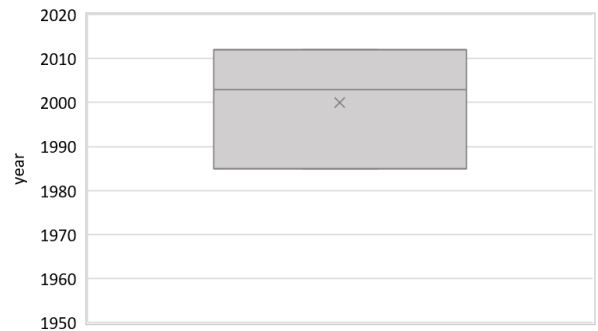
**SYSTEM POWER**



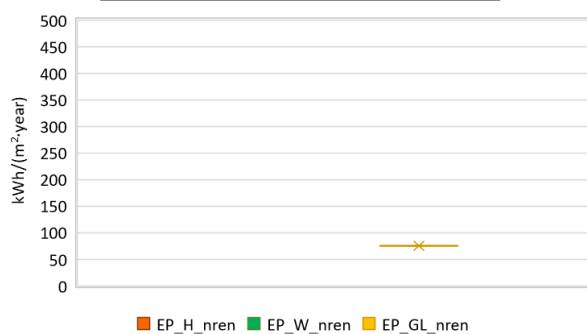
**CO<sub>2</sub> EMISSION**



**HEATING SYSTEM INSTALLATION YEAR**



**NON-RENEWABLE PRIMARY ENERGY USE**



**RENEWABLE PRIMARY ENERGY USE**

