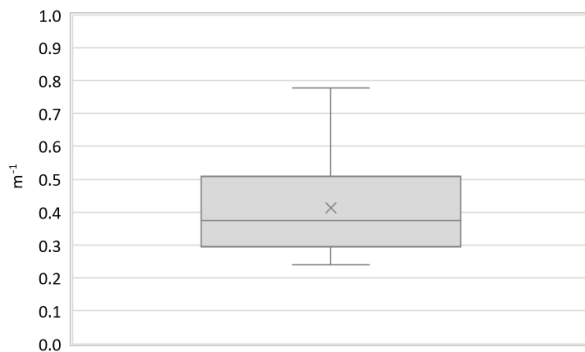


Region:	Calabria						Archetype code: RES_APPBLOCK_ 1981-1990_E_CAL		
Building category:	Residential buildings – Apartments (in multifamily blocks)								
Period of construction:	1981-1990								
Climatic zone:	E	Number of records:				13			
Description (the codes associated with walls and slabs refer 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 (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	$n_f$	-	2.00	0.91	1.00	2.00	3.00	
	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>	0.41	0.16	0.29	0.37	0.51	
	WWR – North orientation	$WWR_N$	-	0.14	0.08	0.05	0.17	0.18	
	WWR – South orientation	$WWR_S$	-	0.16	0.08	0.11	0.16	0.22	
	WWR – East orientation	$WWR_E$	-	0.13	0.09	0.06	0.11	0.22	
	WWR – West orientation	$WWR_W$	-	0.12	0.03	0.10	0.13	0.14	
	Window to useful floor area ratio	$A_{wi}/A_{\text{use}}$	-	0.12	0.04	0.09	0.12	0.16	
ENVELOPE	Roof type	-							
	U-value of the roof	$U_{f,up}$	W/(m <sup>2</sup> ·K)	0.84	0.39	0.41	0.94	1.06	
	External walls type	Hollow brick masonry: 77%, Solid brick masonry: 23%							
	U-value of the wall	$U_{wl}$	W/(m <sup>2</sup> ·K)	0.78	0.29	0.46	0.86	1.05	
	Slab on ground floor type	-							
	U-value of the floor	$U_{f,lw}$	W/(m <sup>2</sup> ·K)	0.49	0.24	0.31	0.38	0.74	
	Windows type	Single glazing, wooden frame: 38%, Double glazing, wooden frame: 23%, Double glazing, aluminum frame with thermal break: 23%, Double glazing, aluminum frame, no thermal break: 8%, Single glazing, aluminum frame: 8%,							
	U-value of the windows	$U_w$	W/(m <sup>2</sup> ·K)	4.11	1.47	2.83	4.00	5.65	
	Shading system type	Roller blinds: 46%, Shutter: 38%, Curtains: 8%, Unknown: 8%							
GAINS and VENTILATION	Occupancy density	$O_c$	person/m <sup>2</sup>	0.027	0.013	0.016	0.028	0.036	
	Lighting power density *	$W_L$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3					
	Equipment power density *	$W_A$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3					
	Type of ventilation	Natural: 100%							
	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	0.00	0.30	0.30	0.30	
THERMAL SYSTEMS	Heating system type	Autonomous: 100%							
	Heating generator	Traditional Boiler: 54%, Condensing Boiler: 23%, Fireplace: 23%							
	Daily operating time of the heating system *	$t_H$	h	8.00	0.00	8.00	8.00	8.00	
	Energy carrier	Natural Gas: 62%, Solid biomass: 23%, LPG: 15%							
	Heating emission sub-system	Radiators: 92%, Fan coil: 8%							
	Cooling system type	Absent: 92%, Air-cooled chiller: 8%							
	Daily operating time of the cooling system *	$t_c$	h	8.00	0.00	8.00	8.00	8.00	
	Cooling emission sub-system	Fan coil: 100%							
	DHW system type	-							
	DHW generator	-							
	# 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								

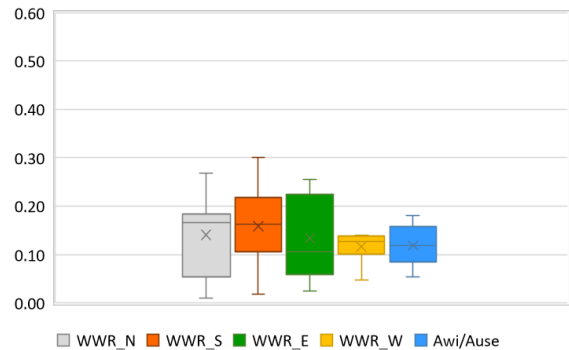
<b>Region:</b>	Calabria	<b>Archetype code:</b> RES_APPBLOCK_ 1981-1990_E_CAL
<b>Building category:</b>	Residential buildings – Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1981-1990	
<b>Climatic zone:</b>	E	
<b>Number of records:</b>		13

### Numerical variables – GEOMETRY

**COMPACTNESS RATIO**

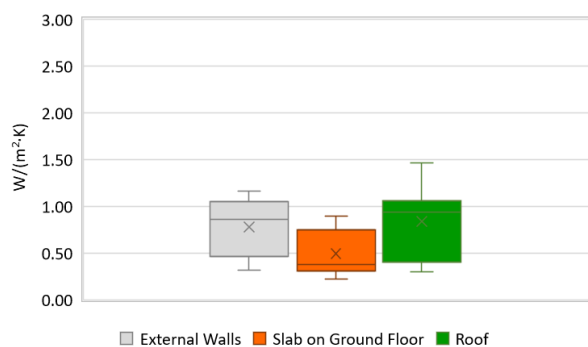


**WINDOWS TO WALL RATIO**

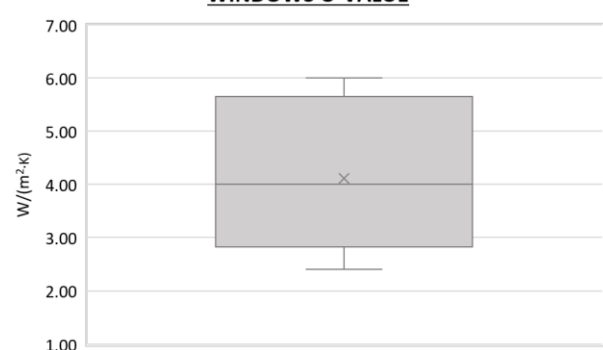


### Numerical variables – ENVELOPE

**OPAQUE BUILDING COMPONENTS U-VALUE**



**WINDOWS U-VALUE**

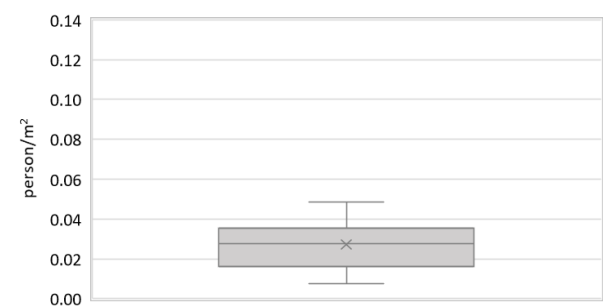


### Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

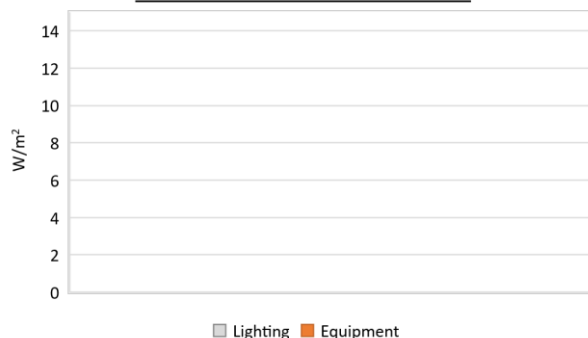
**AIR EXCHANGE RATE**



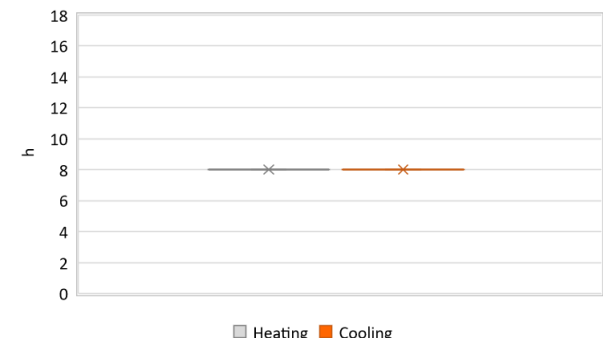
**OCCUPANCY DENSITY**



**INTERNAL GAINS POWER DENSITY**



**DAILY OPERATING TIME**



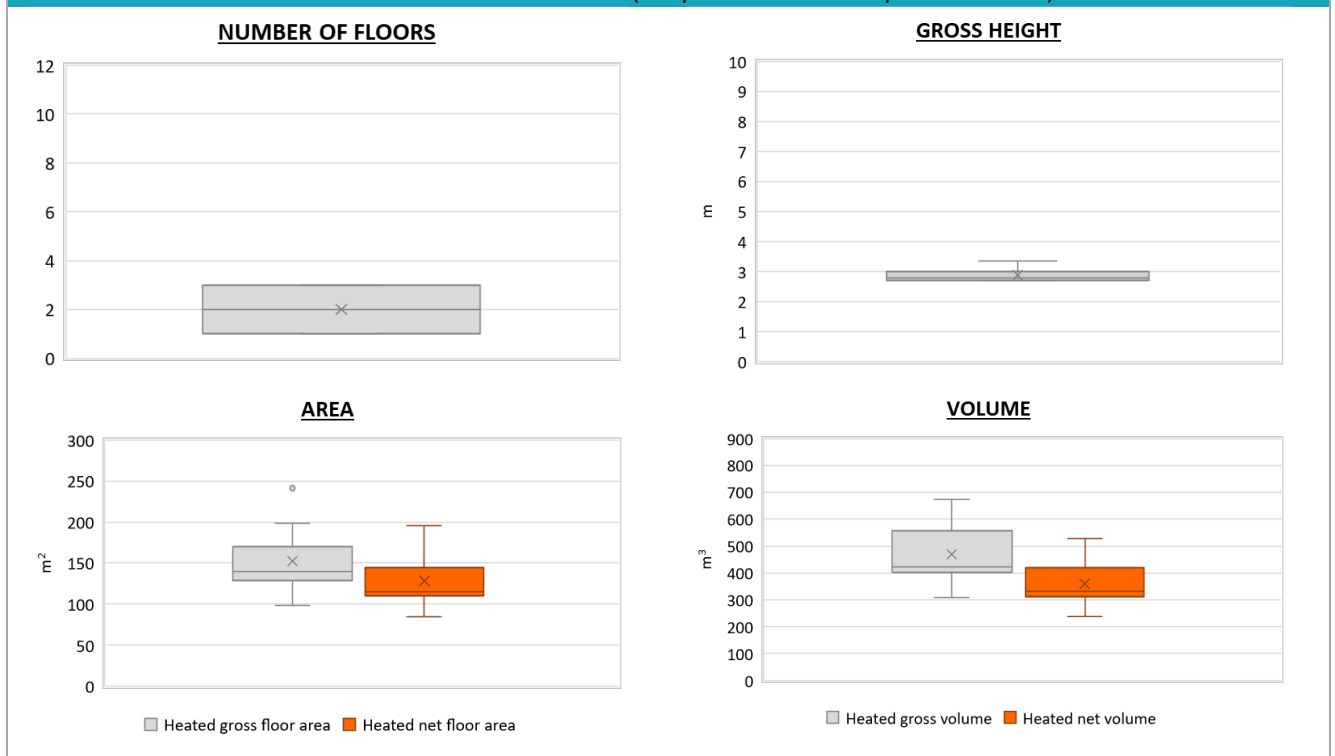
The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

Region:	Calabria	Archetype code: RES_APPBLOCK_ 1981-1990_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1981-1990	
Climatic zone:	E	
Number of records:		13

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	2.88	0.19	2.70	2.80	3.00
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	184.71	90.61	132.24	140.00	219.83
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	155.21	74.73	110.35	119.05	183.80
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	595.80	341.90	411.41	445.47	642.22
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	455.05	256.87	316.49	332.20	496.26
THERMAL SYSTEMS	Heating efficiency or <i>COP</i>	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H,gen}$	kW	25.22	3.65	23.50	24.40	27.40
	Cooling efficiency or <i>EER</i>	$\eta_{C,gen}$ 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)



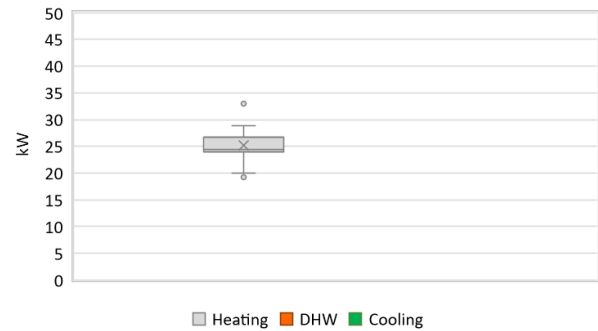
<b>Region:</b>	Calabria	<b>Archetype code:</b> RES_APPBLOCK_ 1981-1990_E_CAL
<b>Building category:</b>	Residential buildings – Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1981-1990	
<b>Climatic zone:</b>	E	
<b>Number of records:</b>		13

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

**DHW SUPPLY TEMPERATURE**



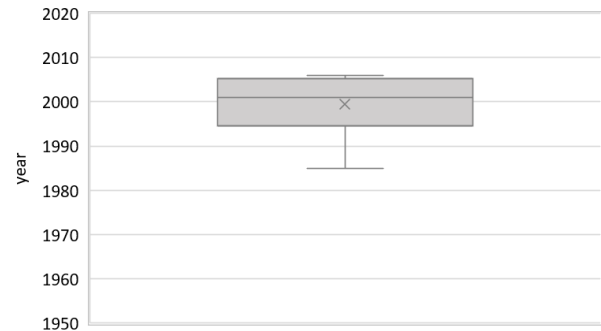
**SYSTEM POWER**



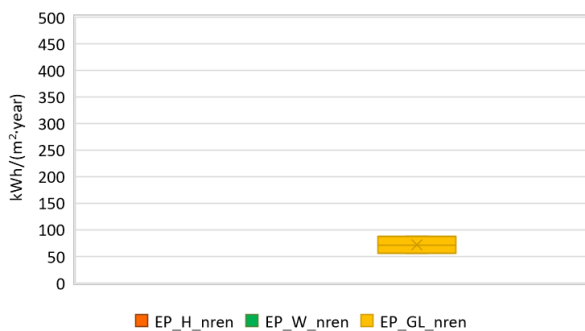
**CO<sub>2</sub> EMISSION**



**HEATING SYSTEM INSTALLATION YEAR**



**NON-RENEWABLE PRIMARY ENERGY USE**



**RENEWABLE PRIMARY ENERGY USE**

