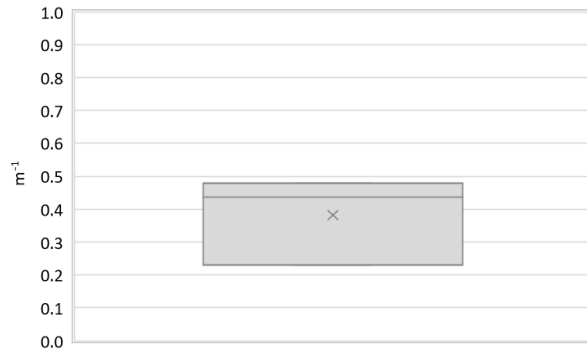


Region:	Calabria					Archetype code: RES_APPBLOCK_ 1991-2000_B_CAL		
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1991-2000							
Climatic zone:	B	Number of records:			5			
Description (the codes associated with walls and slabs refer to 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 (13%) Others (19%) #		
	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	1.41	1.00	1.00	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>	0.38	0.13	0.23	0.44	0.48
	WWR – North orientation	$WWR_N$	-	0.16	0.08	0.09	0.14	0.24
	WWR – South orientation	$WWR_S$	-	0.18	0.14	0.08	0.12	0.35
	WWR – East orientation	$WWR_E$	-	0.27	0.14	0.17	0.27	0.37
	WWR – West orientation	$WWR_W$	-	0.13	0.05	0.08	0.14	0.17
	Window to useful floor area ratio	$A_{wi}/A_{\text{use}}$	-	0.16	0.05	0.12	0.15	0.21
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi,up}$	W/(m <sup>2</sup> ·K)	1.06	0.55	0.58	0.96	1.60
	External walls type	Hollow brick masonry: 100%						
	U-value of the wall	$U_{wl}$	W/(m <sup>2</sup> ·K)	0.82	0.33	0.54	0.70	1.17
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi,lw}$	W/(m <sup>2</sup> ·K)	1.02	0.52	0.54	0.97	1.54
	Windows type	Double glazing, wooden frame: 60%, Double glazing, aluminum frame, no thermal break: 20%, Single glazing, wooden frame: 20%						
	U-value of the windows	$U_W$	W/(m <sup>2</sup> ·K)	2.55	0.22	2.47	2.55	2.62
GAINS and VENTILATION	Shading system type	Shutter: 40%, Roller blinds: 20%, Curtains: 20%, Unknown: 20%						
	Occupancy density	$O_C$	person/m <sup>2</sup>	0.026	0.010	0.019	0.019	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%						
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: 80%, Condensing Boiler: 20%						
	Daily operating time of the heating system *	$t_H$	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 100%						
	Heating emission sub-system	Radiators: 100%						
	Cooling system type	Absent: 100%						
	Daily operating time of the cooling system	$t_C$	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Autonomous – coupled with heating: 100%						
	DHW generator	Natural gas boiler: 100%						
	# Standards (8%), Municipal database (7%), EPC database (4%). * These values were not available in the considered sources, and are thus derived from UNI EN Standards							

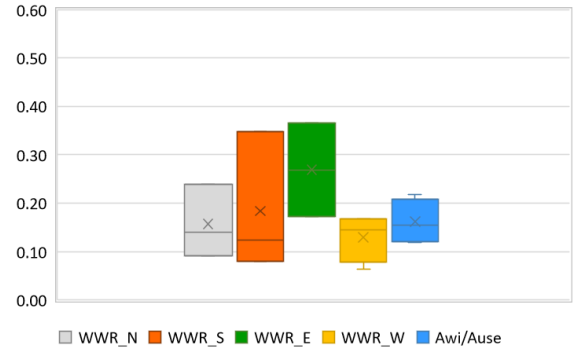
<b>Region:</b>	Calabria	<b>Archetype code:</b> RES_APPBLOCK_ 1991-2000_B_CAL
<b>Building category:</b>	Residential buildings – Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1991-2000	
<b>Climatic zone:</b>	B	
<b>Number of records:</b>		5

### Numerical variables – GEOMETRY

**COMPACTNESS RATIO**

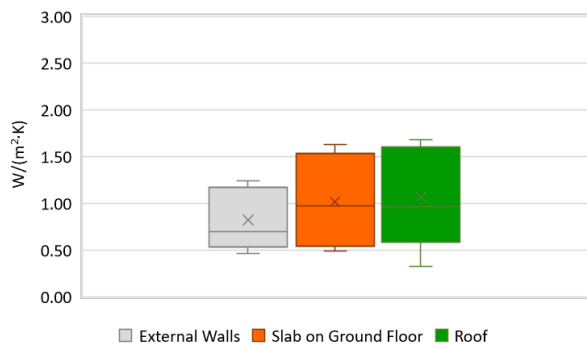


**WINDOWS TO WALL RATIO**



### Numerical variables – ENVELOPE

**OPAQUE BUILDING COMPONENTS U-VALUE**



**WINDOWS U-VALUE**

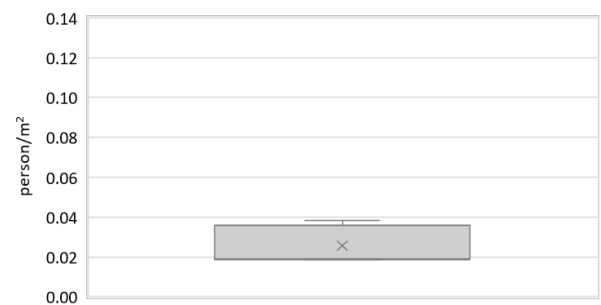


### Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

**AIR EXCHANGE RATE**



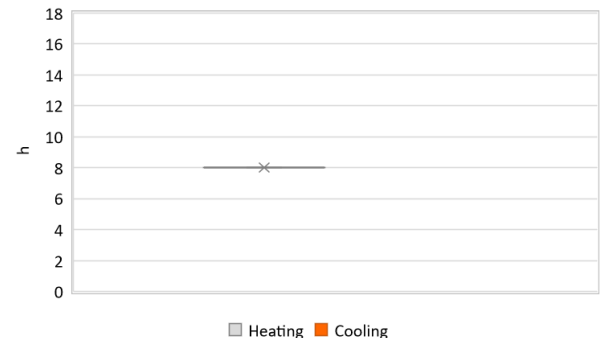
**OCCUPANCY DENSITY**



**INTERNAL GAINS POWER DENSITY**



**DAILY OPERATING TIME**

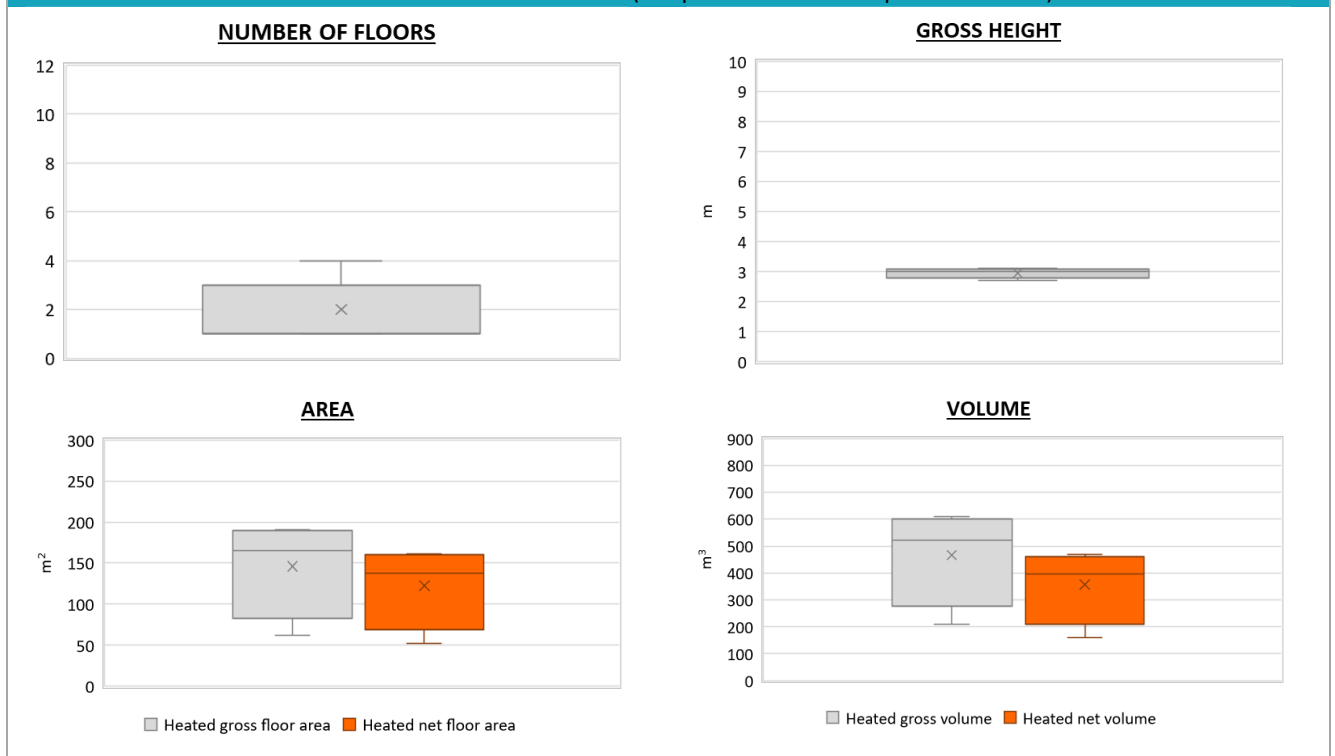


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1991-2000_B_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1991-2000			
Climatic zone:	B	Number of records:	5	

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	2.95	0.17	2.78	3.00	3.08
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	145.91	59.59	82.75	165.43	189.55
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	122.46	50.47	69.00	138.20	160.19
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	466.62	180.63	276.06	523.58	600.20
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	356.58	138.04	210.90	397.96	460.88
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	20.54	9.26	10.80	24.00	28.55
	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)



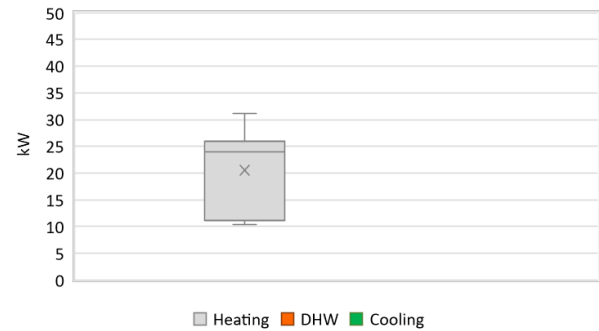
<b>Region:</b>	Calabria	<b>Archetype code:</b> RES_APPBLOCK_ 1991-2000_B_CAL
<b>Building category:</b>	Residential buildings – Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1991-2000	
<b>Climatic zone:</b>	B	
<b>Number of records:</b>		5

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

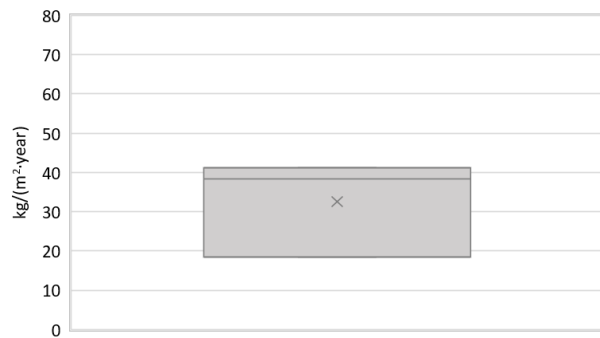
**DHW SUPPLY TEMPERATURE**



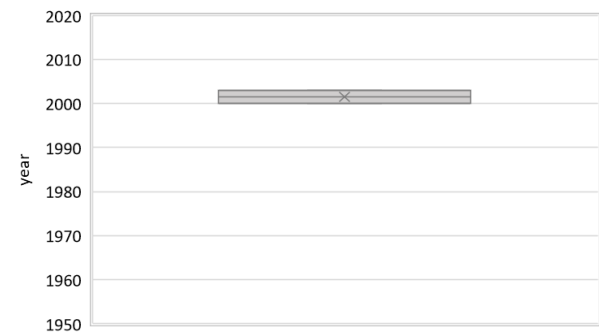
**SYSTEM POWER**



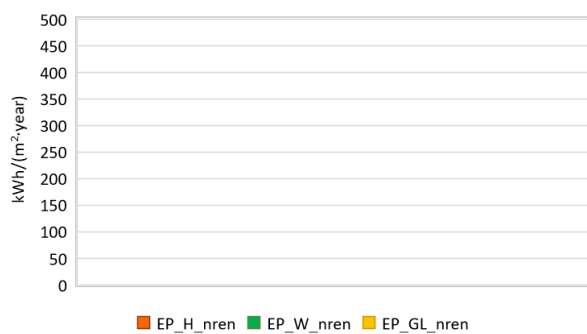
**CO<sub>2</sub> EMISSION**



**HEATING SYSTEM INSTALLATION YEAR**



**NON-RENEWABLE PRIMARY ENERGY USE**



**RENEWABLE PRIMARY ENERGY USE**

