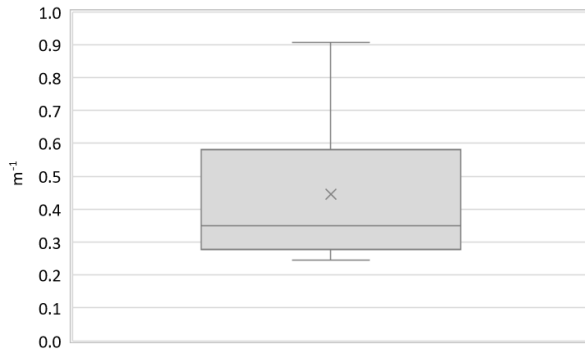


Region:		Calabria					Archetype code: RES_APPBLOCK_ 1991-2000_C_CAL	
Building category:		Residential buildings – Apartments (in multifamily blocks)						
Period of construction:		1991-2000						
Climatic zone:		C	Number of records:		28			
Description (the codes associated with walls and slabs refer to 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	-	2.25	1.53	1.00	2.00	3.25
	Gross height	H_g	m	-	-	-	-	-
	Footprint area	$A_{\text{footprint}}$	m ²	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m ²	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m ³	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m ³	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.45	0.20	0.28	0.35	0.58
	WWR – North orientation	WWR_N	-	0.16	0.09	0.11	0.15	0.20
	WWR – South orientation	WWR_S	-	0.17	0.08	0.11	0.16	0.22
	WWR – East orientation	WWR_E	-	0.18	0.17	0.08	0.17	0.21
	WWR – West orientation	WWR_W	-	0.22	0.17	0.12	0.19	0.25
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.13	0.04	0.10	0.14	0.15
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi;up}$	W/(m ² ·K)	0.95	0.48	0.45	1.02	1.34
	External walls type	Hollow brick masonry: 89%, Solid brick masonry: 7%, Masonry with local stones: 4%						
	U-value of the wall	U_{wl}	W/(m ² ·K)	0.80	0.33	0.56	0.76	1.01
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi;lw}$	W/(m ² ·K)	0.87	0.52	0.41	0.84	1.23
	Windows type	Double glazing, aluminum frame with thermal break: 29%, Double glazing, wooden frame: 25%, Double glazing, aluminum frame, no thermal break: 18%, Single glazing, wooden frame: 11%, Double glazing, PVC frame: 10%, Single glazing, aluminum frame: 7%,						
	U-value of the windows	U_W	W/(m ² ·K)	3.30	1.14	2.78	2.95	3.20
Shading system type	Shutter: 54%, Roller blinds: 42%, Curtains: 4%							
GAINS and VENTILATION	Occupancy density	O_C	person/m ²	0.033	0.011	0.023	0.034	0.041
	Lighting power density *	W_L	W/m ²	UNI EN 16798-1 - A.8.3				
	Equipment power density *	W_A	W/m ²	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Autonomous: 100%						
	Heating generator	Traditional Boiler: 79%, Condensing Boiler: 14%, Air-source heat pump: 4%, Unknown: 3%						
	Daily operating time of the heating system *	t_H	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 79%, LPG: 7%, Electricity: 11%, Unknown: 3%						
	Heating emission sub-system	Radiators: 89%, Fan coil: 11%						
	Cooling system type	Absent: 96%, Air-cooled chiller: 4%						
	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							

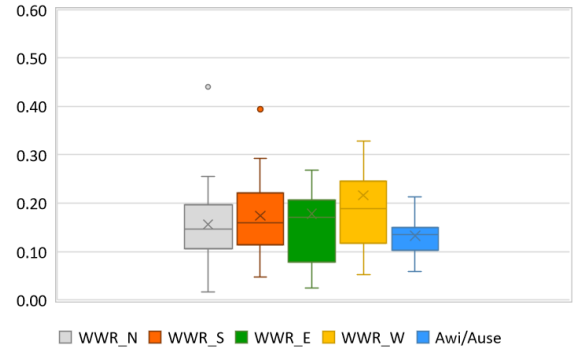
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1991-2000_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1991-2000	
Climatic zone:	C	
Number of records:		28

Numerical variables – GEOMETRY

COMPACTNESS RATIO

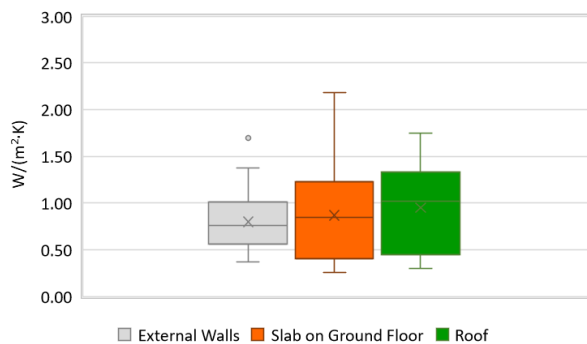


WINDOWS TO WALL RATIO

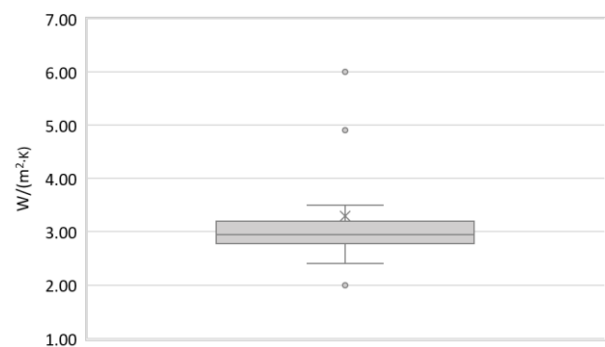


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

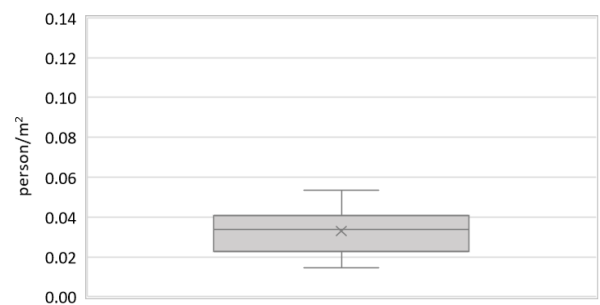


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

AIR EXCHANGE RATE



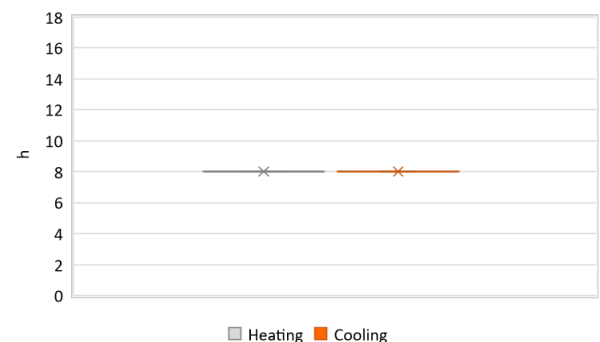
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY

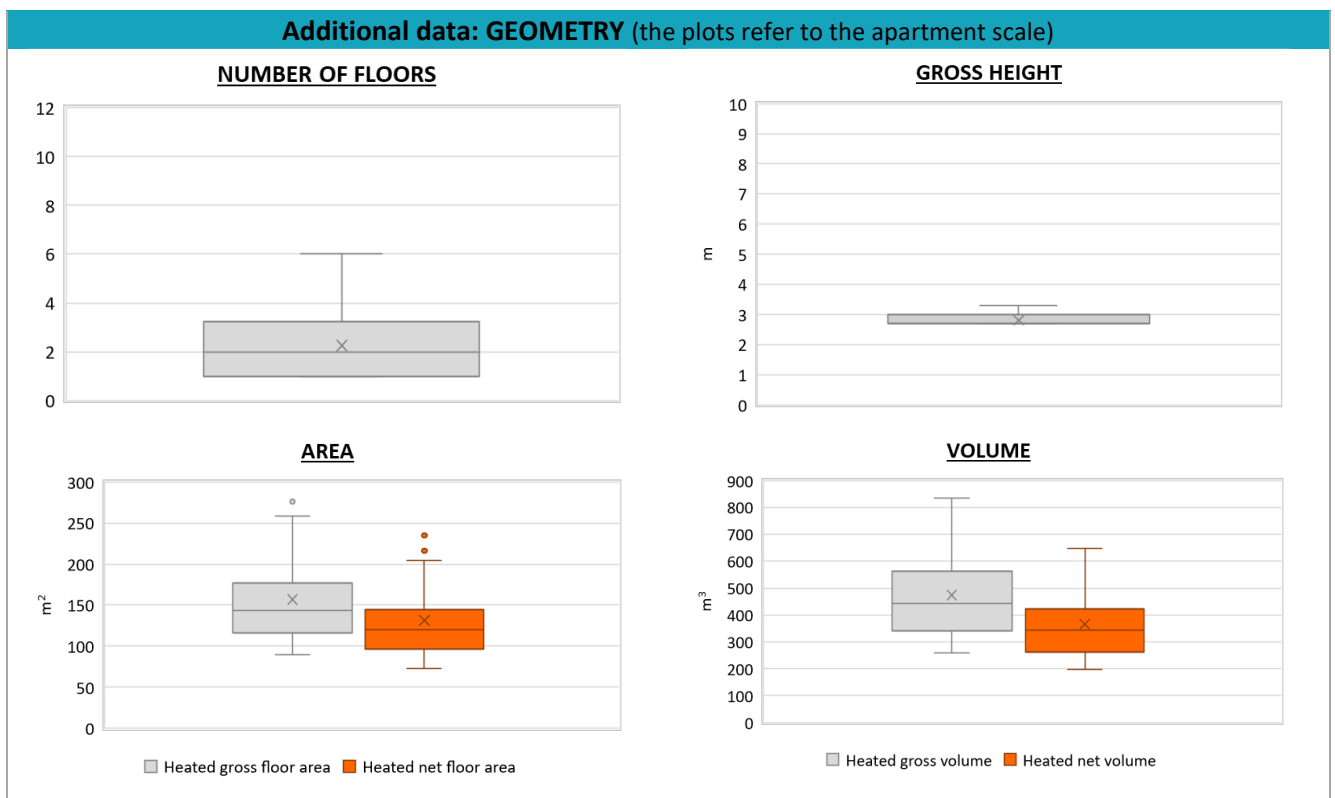


DAILY OPERATING TIME



Region:	Calabria	Archetype code: RES_APPBLOCK_ 1991-2000_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1991-2000	
Climatic zone:	C	
Number of records:		28

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	2.81	0.16	2.70	2.70	3.00
	Heated gross floor area	$A_{H,g}$	m ²	157.08	51.73	115.93	143.28	177.06
	Heated net floor area	$A_{H,n}$	m ²	131.49	43.83	96.46	120.00	144.20
	Heated gross volume	$V_{H,g}$	m ³	474.06	157.92	342.40	442.48	561.73
	Heated net volume	$V_{H,n}$	m ³	365.92	121.50	262.64	344.89	421.97
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	25.67	4.36	24.00	25.00	28.00
	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	θ_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								



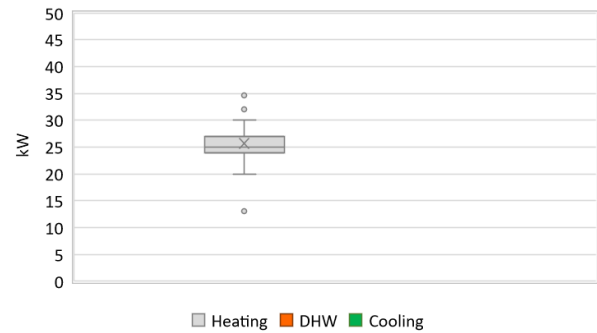
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1991-2000_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1991-2000	
Climatic zone:	C	
Number of records:		28

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

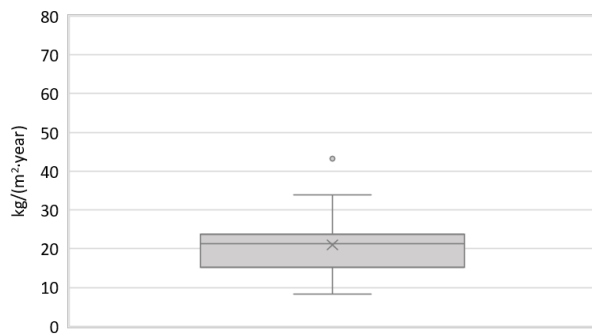
DHW SUPPLY TEMPERATURE



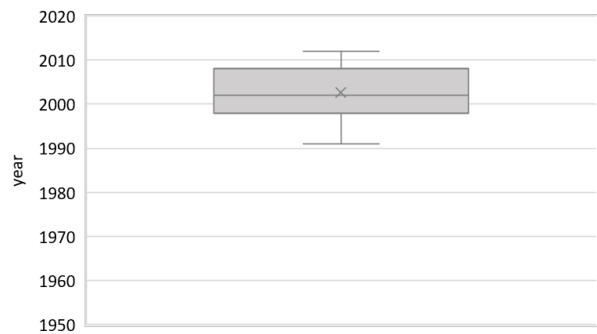
SYSTEM POWER



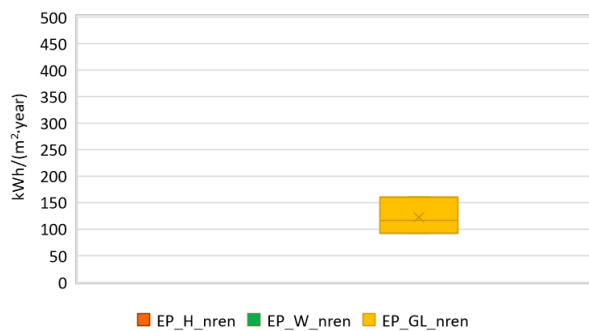
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

