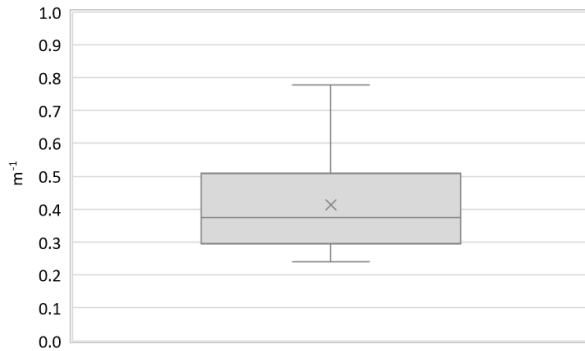


Region:		Calabria					Archetype code: RES_APPBLOCK_ 1981-1990_E_CAL	
Building category:		Residential buildings – Apartments (in multifamily blocks)						
Period of construction:		1981-1990						
Climatic zone:		E	Number of records:		13			
Description (the codes associated with walls and slabs refer to 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 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	0.41	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_{use}	-	0.12	0.04	0.09	0.12	0.16
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{f;up}$	W/(m ² ·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 ² ·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 ² ·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 ² ·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 ²	0.027	0.013	0.016	0.028	0.036
	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: 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							

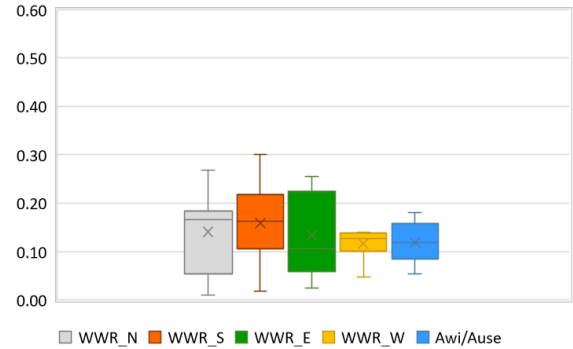
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1981-1990_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
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Climatic zone:	E	
Number of records:		13

Numerical variables – GEOMETRY

COMPACTNESS RATIO

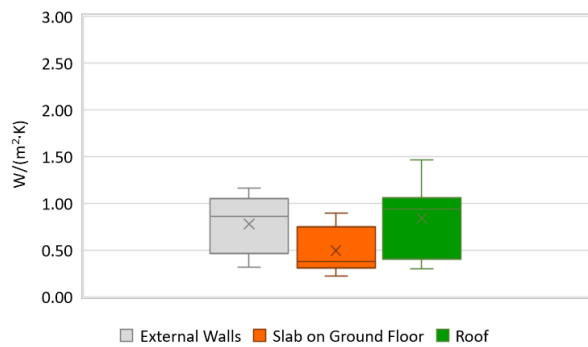


WINDOWS TO WALL RATIO

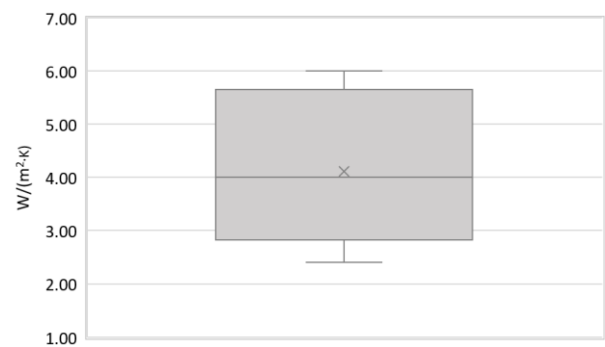


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

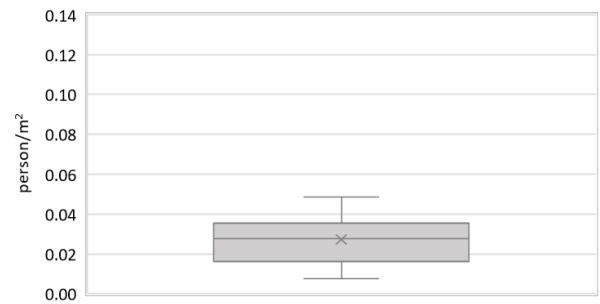


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

AIR EXCHANGE RATE



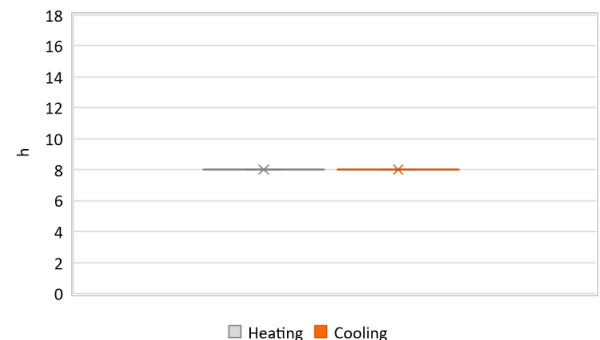
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

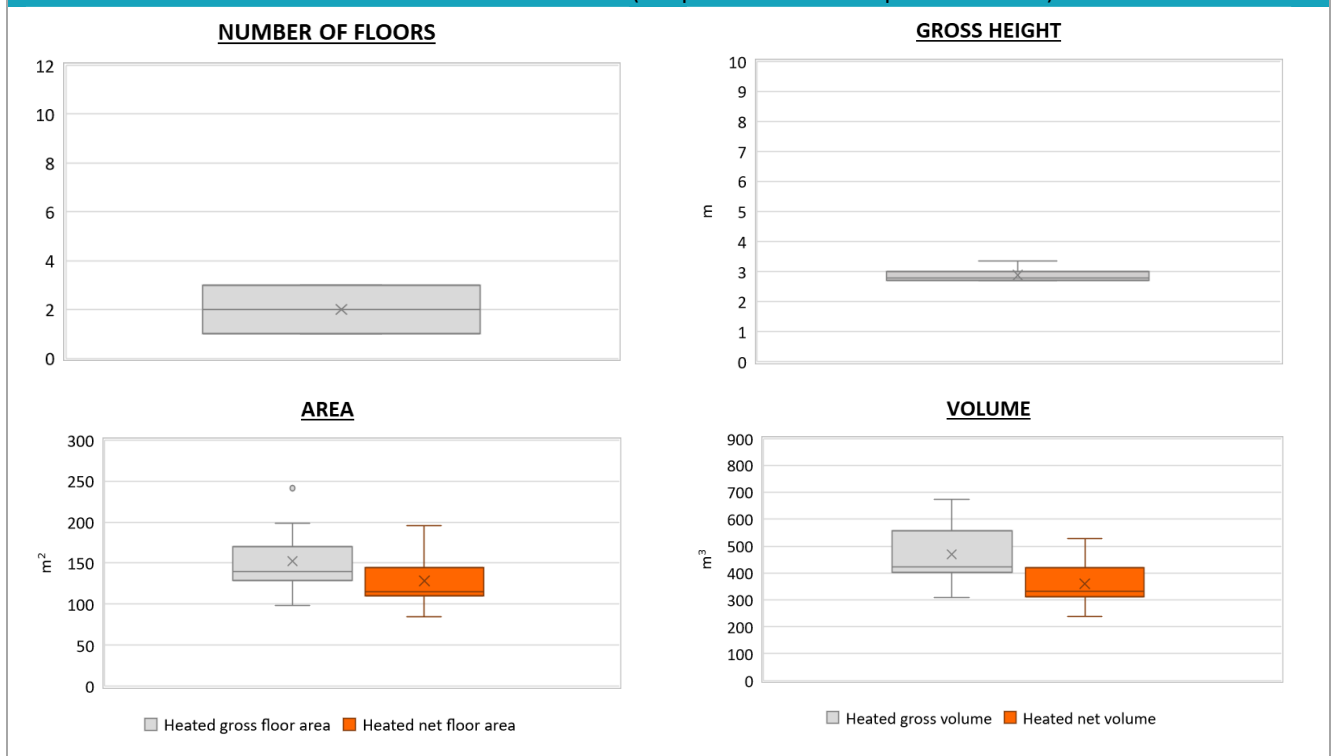


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1981-1990_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1981-1990			
Climatic zone:	E	Number of records:	13	

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 ²	184.71	90.61	132.24	140.00	219.83
	Heated net floor area	$A_{H,n}$	m ²	155.21	74.73	110.35	119.05	183.80
	Heated gross volume	$V_{H,g}$	m ³	595.80	341.90	411.41	445.47	642.22
	Heated net volume	$V_{H,n}$	m ³	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	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

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



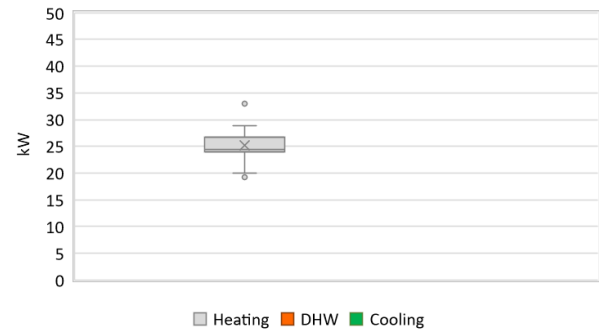
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1981-1990_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1981-1990	
Climatic zone:	E	
Number of records:		13

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

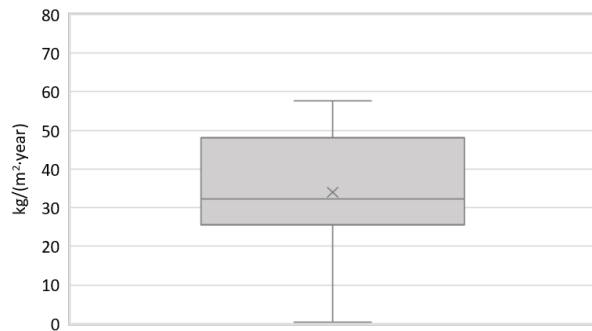
DHW SUPPLY TEMPERATURE



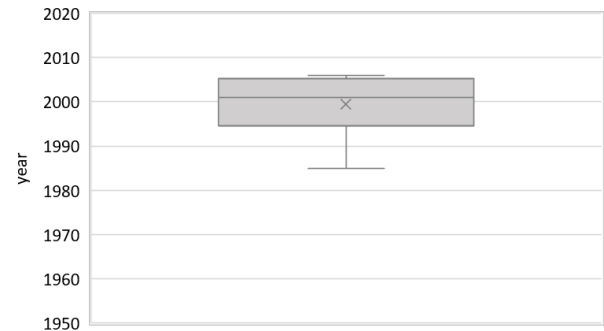
SYSTEM POWER



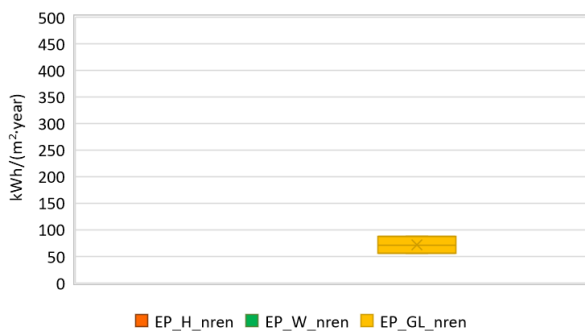
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

