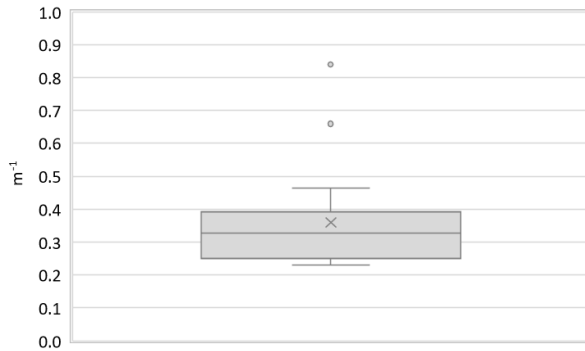


Region:		Calabria					Archetype code: RES_APPBLOCK_ 1971-1980_C_CAL	
Building category:		Residential buildings – Apartments (in multifamily blocks)						
Period of construction:		1971-1980						
Climatic zone:		C	Number of records:			21		
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: double layer of hollow bricks (8 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	-	1.62	1.16	1.00	1.00	2.00
	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	0.36	0.15	0.25	0.33	0.39
	WWR – North orientation	WWR_N	-	0.21	0.15	0.12	0.19	0.27
	WWR – South orientation	WWR_S	-	0.21	0.18	0.09	0.13	0.25
	WWR – East orientation	WWR_E	-	0.19	0.13	0.09	0.18	0.22
	WWR – West orientation	WWR_W	-	0.26	0.14	0.15	0.24	0.37
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.15	0.05	0.10	0.14	0.18
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{\text{fi,up}}$	W/(m ² ·K)	1.01	0.62	0.46	0.79	1.58
	External walls type	Hollow brick masonry: 81%, Solid brick masonry: 14%, Masonry with local stones: 5%						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.08	0.48	0.80	1.02	1.11
	Slab on ground floor type	-						
	U-value of the floor	$U_{\text{fi,lw}}$	W/(m ² ·K)	0.87	0.61	0.32	0.72	1.31
	Windows type	Single glazing, wooden frame: 43%, Double glazing, aluminum frame with thermal break: 24%, Single glazing, aluminum frame: 19%, Double glazing, aluminum frame, no thermal break: 9%, Double glazing, wooden frame: 5%						
	U-value of the windows	U_{w}	W/(m ² ·K)	3.23	0.84	2.80	3.00	3.45
Shading system type	Shutter: 52%, Roller blinds: 43%, Curtains: 5%							
GAINS and VENTILATION	Occupancy density	O_{C}	person/m ²	0.031	0.011	0.023	0.030	0.038
	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: 95%, Centralized: 5%						
	Heating generator	Traditional Boiler: 76%, Condensing Boiler: 10%, Air-source heat pump: 5%, Unknown: 9%						
	Daily operating time of the heating system	t_{H}	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 71%, LPG: 10%, Electricity: 10%, Unknown: 9%						
	Heating emission sub-system	Radiators: 81%, Fan coil: 10%, Unknown: 9%						
	Cooling system type	Absent: 95%, Air-cooled chiller: 5%,						
	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								

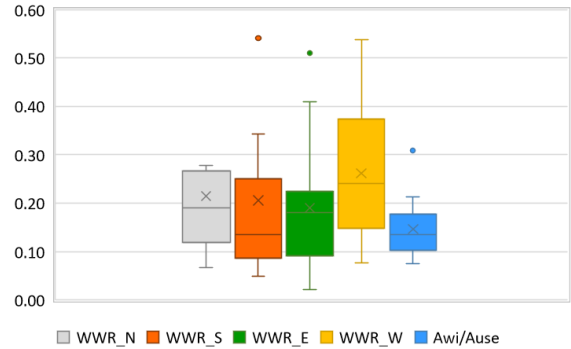
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1971-1980_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
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Climatic zone:	C	
Number of records:		21

Numerical variables – GEOMETRY

COMPACTNESS RATIO

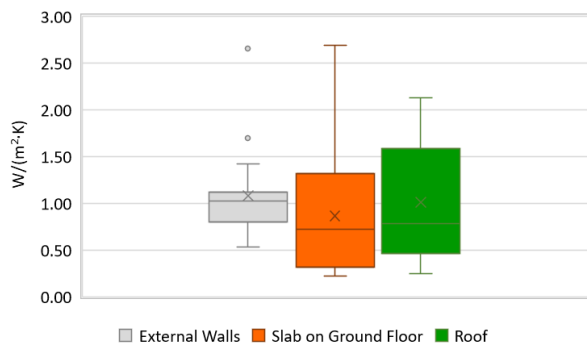


WINDOWS TO WALL RATIO

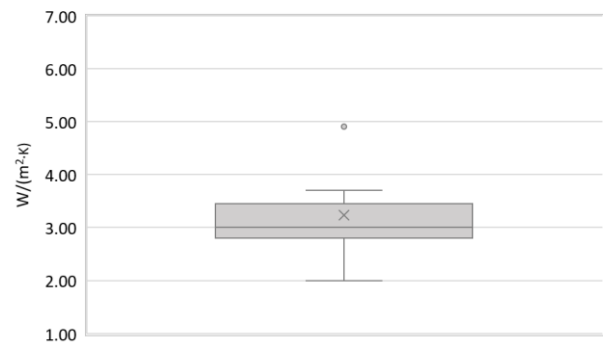


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

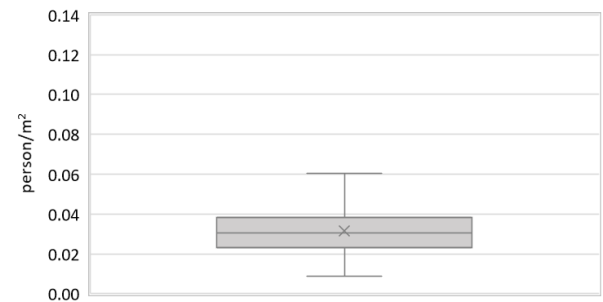


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

AIR EXCHANGE RATE



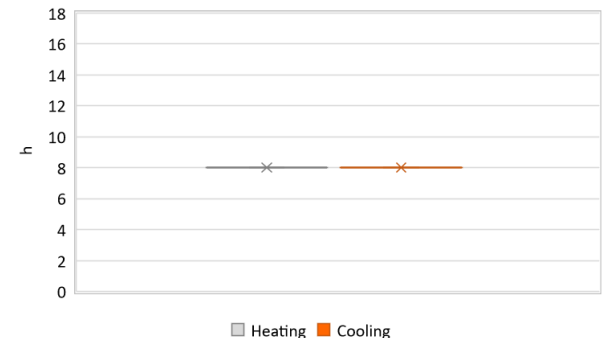
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



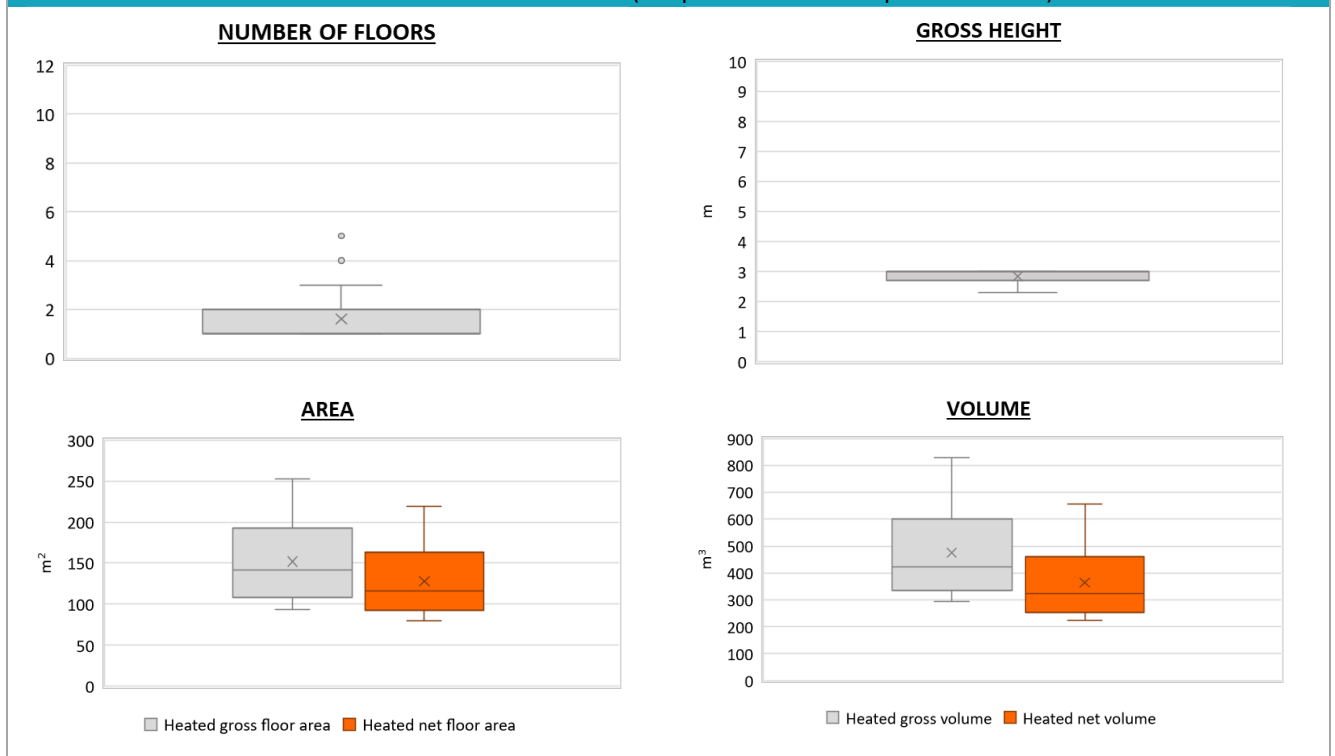
DAILY OPERATING TIME



Region:	Calabria	Archetype code: RES_APPBLOCK_ 1971-1980_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1971-1980	
Climatic zone:	C	
Number of records:		21

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	2.85	0.19	2.70	3.00	3.00
	Heated gross floor area	$A_{H,g}$	m ²	152.09	47.61	108.50	141.95	192.64
	Heated net floor area	$A_{H,n}$	m ²	127.85	40.65	92.50	116.30	162.91
	Heated gross volume	$V_{H,g}$	m ³	474.84	156.67	334.20	422.41	600.93
	Heated net volume	$V_{H,n}$	m ³	364.43	122.26	254.31	322.22	460.28
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	27.04	6.53	24.00	24.00	26.95
	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)



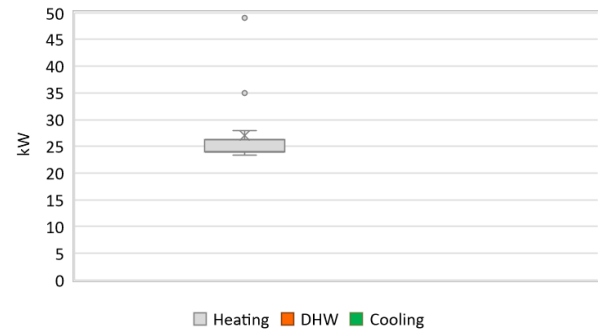
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1971-1980_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1971-1980	
Climatic zone:	C	
Number of records:		21

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

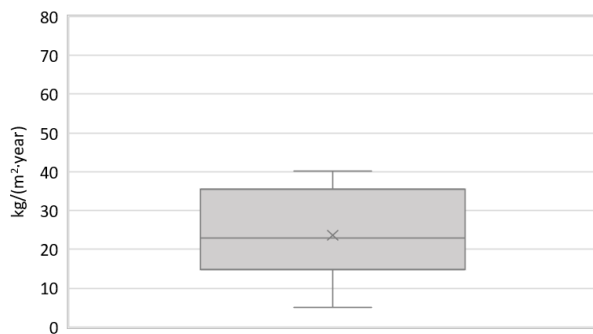
DHW SUPPLY TEMPERATURE



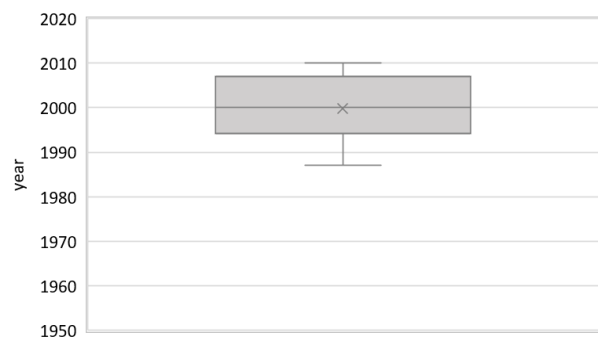
SYSTEM POWER



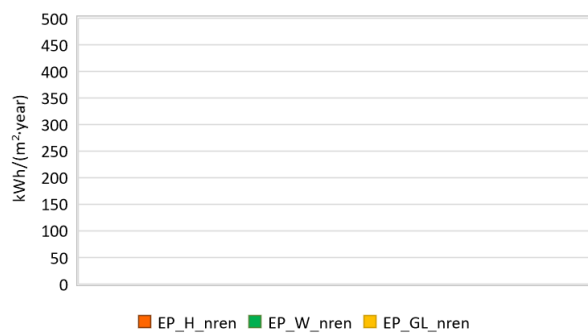
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

