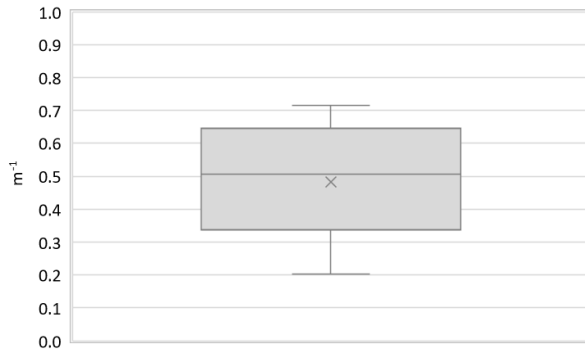


Region:	Calabria					Archetype code: RES_APPBLOCK_ 1961-1970_B_CAL		
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1961-1970							
Climatic zone:	B	Number of records:			19			
Description (the codes associated with walls and slabs refer to 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 (12%) Expert assumptions (11%) Others (25%) #		
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	1.63	1.07	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	0.48	0.17	0.34	0.51	0.65
	WWR – North orientation	WWR_N	-	0.12	0.09	0.06	0.09	0.20
	WWR – South orientation	WWR_S	-	0.22	0.03	0.18	0.23	0.24
	WWR – East orientation	WWR_E	-	0.19	0.08	0.13	0.17	0.28
	WWR – West orientation	WWR_W	-	0.21	0.08	0.13	0.19	0.31
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.15	0.06	0.11	0.14	0.18
	ENVELOPE	Roof type	-					
U-value of the roof		$U_{f,\text{up}}$	W/(m ² ·K)	0.90	0.38	0.57	0.77	1.13
External walls type		Hollow brick masonry: 68%, Solid brick masonry: 11%, Concrete wall: 11%, Masonry with local stones: 5%, Unknown: 5%						
U-value of the wall		U_{wl}	W/(m ² ·K)	0.97	0.38	0.51	1.06	1.20
Slab on ground floor type		-						
U-value of the floor		$U_{f,lw}$	W/(m ² ·K)	0.79	0.38	0.50	0.73	1.18
Windows type		Double glazing, aluminum frame with thermal break: 23%, Double glazing, aluminum frame, no thermal break: 18%, Double glazing, wooden frame: 18%, Single glazing, aluminum frame: 18%, Double glazing, PVC frame: 12%, Single glazing, wooden frame: 11%						
U-value of the windows		U_w	W/(m ² ·K)	3.49	1.07	2.80	2.95	4.90
Shading system type		Shutter: 47%, Roller blinds: 41%, Curtains: 6%, Unknown: 6%						
GAINS and VENTILATION	Occupancy density	O_c	person/m ²	0.036	0.017	0.024	0.034	0.050
	Lighting power density	W_L	W/m ²	5.61	2.94	3.55	5.05	8.89
	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: 89%, Centralized: 11%						
	Heating generator	Traditional Boiler: 47%, Fireplace: 21%, Condensing Boiler: 16%, Air source heat pump: 5%, Unknown: 11%						
	Daily operating time of the heating system	t_H	h	7.14	4.05	4.00	6.00	9.00
	Energy carrier	Natural Gas: 42%, Solid Biomass: 21%, Electricity: 16%, LPG: 11%, Unknown: 10%						
	Heating emission sub-system	Radiators: 77%, Fan coil: 6%, Unknown: 17%						
	Cooling system type	Air-cooled chiller: 53%, Absent: 42%, Water-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	Autonomous - detached from heating: 100%						
	DHW generator	Electric boiler: 100%						
# Standards (10%), EPC databases (9%), Municipal database (6%).								
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

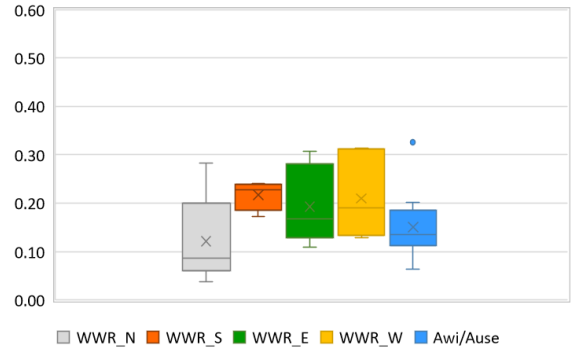
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1961-1970_B_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1970	
Climatic zone:	B	
Number of records:		19

Numerical variables – GEOMETRY

COMPACTNESS RATIO

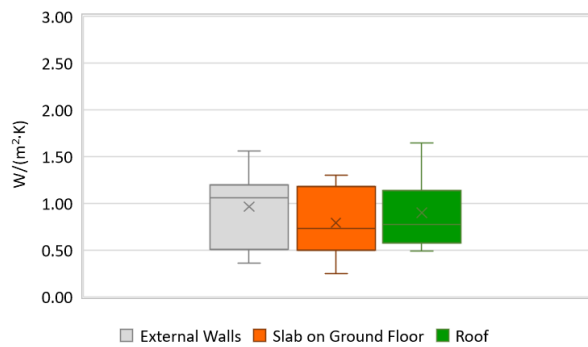


WINDOWS TO WALL RATIO

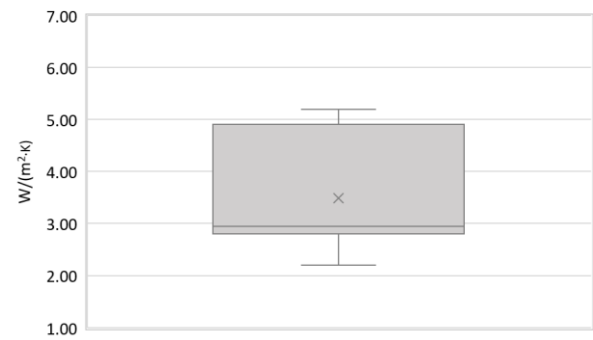


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

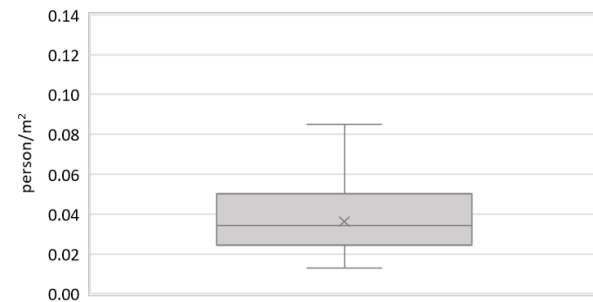


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

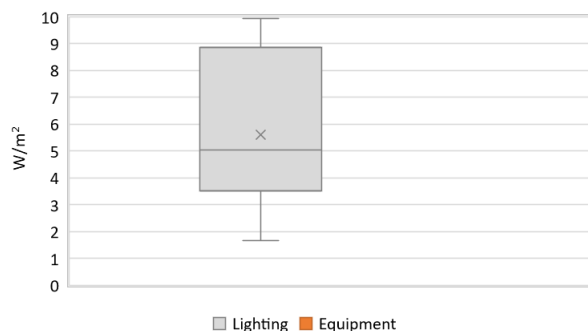
AIR EXCHANGE RATE



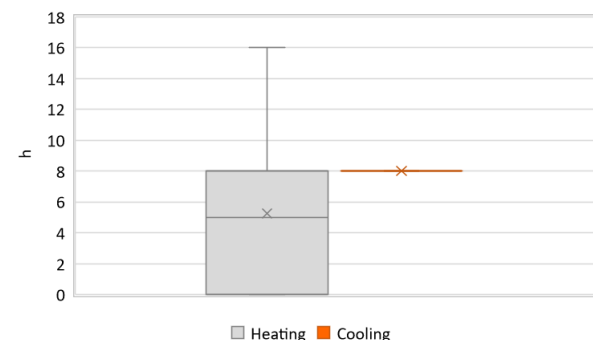
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

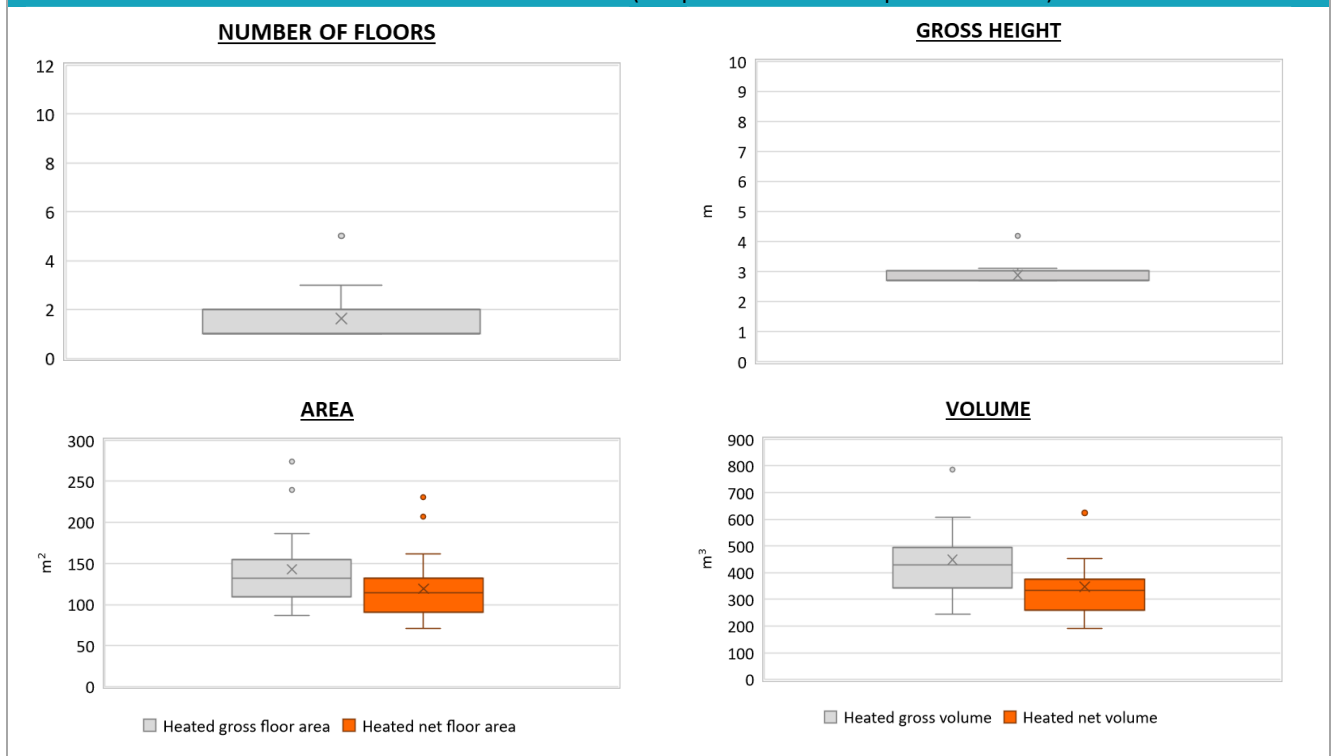


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1961-1970_B_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1961-1970			
Climatic zone:	B	Number of records:	19	

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	2.89	0.37	2.70	2.70	3.03
	Heated gross floor area	$A_{H,g}$	m ²	142.75	48.24	109.11	132.34	155.16
	Heated net floor area	$A_{H,n}$	m ²	119.53	42.02	90.51	113.95	132.06
	Heated gross volume	$V_{H,g}$	m ³	448.59	155.13	341.68	428.26	494.16
	Heated net volume	$V_{H,n}$	m ³	347.67	123.54	259.90	334.80	375.52
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	20.91	8.65	19.25	24.00	25.30
	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	1.50	0.00	1.50	1.50	1.50

* These values refer to the apartment scale

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



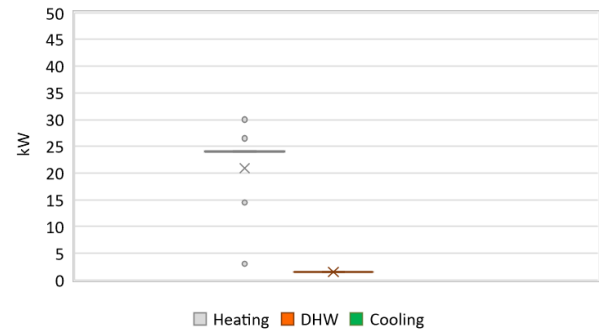
Region:	Calabria			Archetype code: RES_APPBLOCK_ 1961-1970_B_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1961-1970			
Climatic zone:	B	Number of records:	19	

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

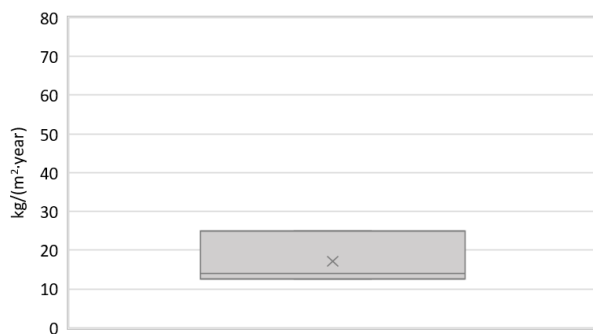
DHW SUPPLY TEMPERATURE



SYSTEM POWER



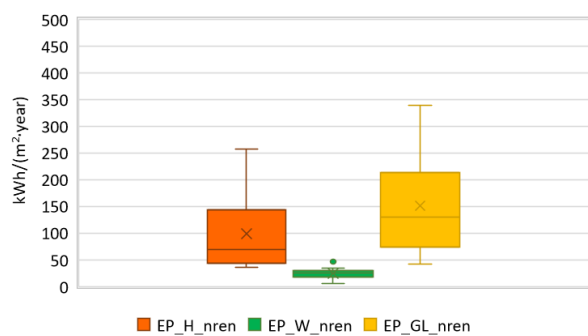
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

