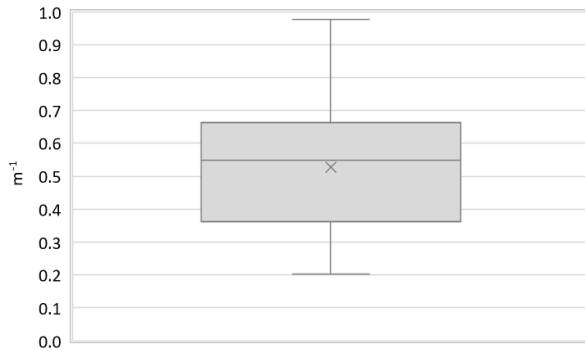


Region:	Calabria					Archetype code: RES_APPBLOCK_ 1961-1970_C_CAL		
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1961-1970							
Climatic zone:	C	Number of records:			186			
Description (the codes associated with walls and slabs refer 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 (38%) EPC databases (26%) Standards (12%) Others (24%) #		
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	2.40	1.49	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	0.53	0.19	0.36	0.55	0.66
	WWR – North orientation	WWR_N	-	0.19	0.15	0.07	0.16	0.26
	WWR – South orientation	WWR_S	-	0.23	0.14	0.11	0.19	0.31
	WWR – East orientation	WWR_E	-	0.18	0.09	0.11	0.19	0.25
	WWR – West orientation	WWR_W	-	0.16	0.11	0.09	0.15	0.19
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.14	0.05	0.11	0.13	0.17
	ENVELOPE	Roof type	-					
U-value of the roof		$U_{f,up}$	W/(m ² ·K)	1.12	0.56	0.60	1.14	1.59
External walls type		Hollow brick masonry: 62%, Concrete wall: 21%, Solid brick masonry: 9%, Masonry with local stones: 2%, Low density stone masonry (dry density up to 1300 kg/m ³): 1%, Unknown: 5%						
U-value of the wall		U_{wl}	W/(m ² ·K)	0.92	0.50	0.51	0.84	1.16
Slab on ground floor type		-						
U-value of the floor		$U_{f,lw}$	W/(m ² ·K)	1.17	0.48	0.94	1.26	1.38
Windows type		Double glazing, aluminum frame, no thermal break: 20%, Double glazing, aluminum frame with thermal break: 19%, Double glazing, wooden frame: 17%, Double glazing, PVC frame: 17%, Single glazing, aluminum frame: 13%, Single glazing, wooden frame: 10%, Single glazing, PVC frame: 5%						
U-value of the windows		U_W	W/(m ² ·K)	3.39	1.04	2.80	2.95	3.70
Shading system type	Shutter: 48%, Roller blinds: 46%, No shading: 3%, Curtains: 2%, Unknown: 1%							
GAINS and VENTILATION	Occupancy density	O_C	person/m ²	0.042	0.012	0.032	0.050	0.050
	Lighting power density	W_L	W/m ²	5.18	2.82	2.73	4.14	7.91
	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: 72%, Fireplace: 13%, Condensing Boiler: 12%, Unknown: 3%						
	Daily operating time of the heating system	t_H	h	6.05	2.93	4.00	5.00	6.75
	Energy carrier	Natural Gas: 78%, Solid Biomass: 13%, Electricity: 4%, LPG: 3%, Unknown: 2%						
	Heating emission sub-system	Radiators: 85%, Fan coil: 5%, Unknown: 10%						
	Cooling system type	Absent: 79%, Air-cooled chiller: 20%, Water-cooled chiller: 1%						
	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: 55%, Autonomous – coupled with heating: 45%						
	DHW generator	Natural gas boiler: 55%, Electric boiler: 45%						
	# Expert assumptions (11%), Measured data (8%), Municipal database (5%).							
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

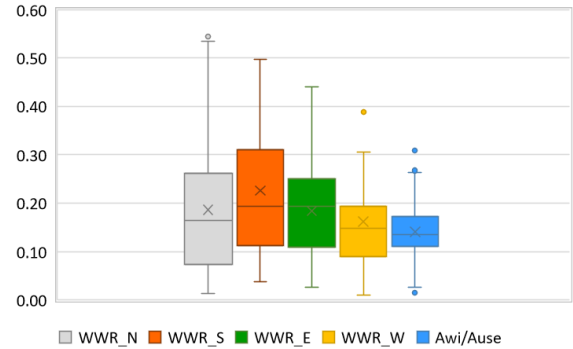
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1961-1970_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1970	
Climatic zone:	C	
Number of records:		186

Numerical variables – GEOMETRY

COMPACTNESS RATIO

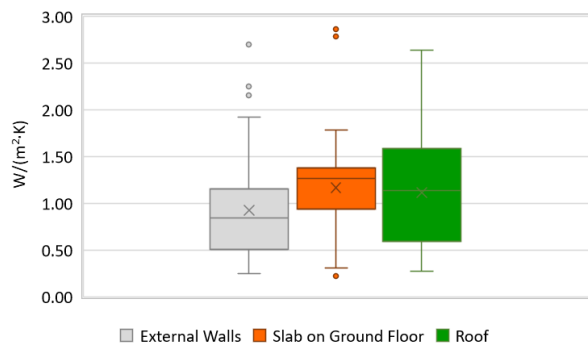


WINDOWS TO WALL RATIO

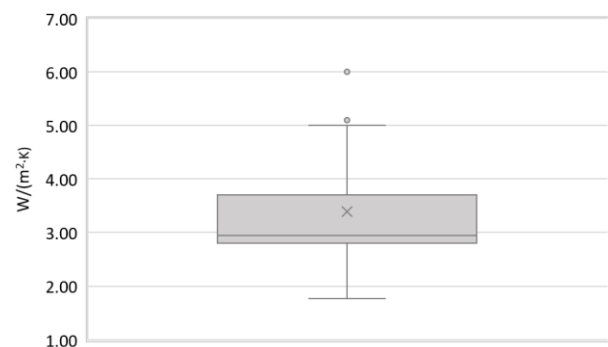


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

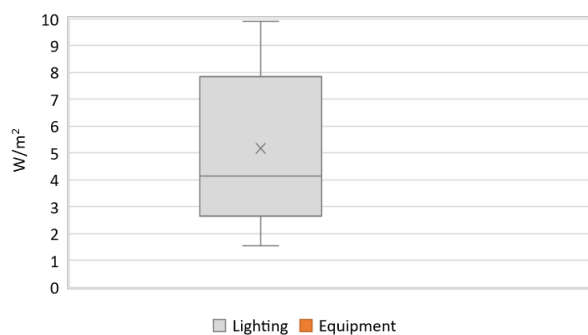
AIR EXCHANGE RATE



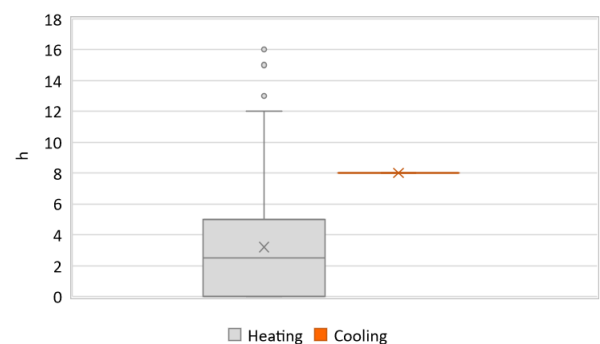
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

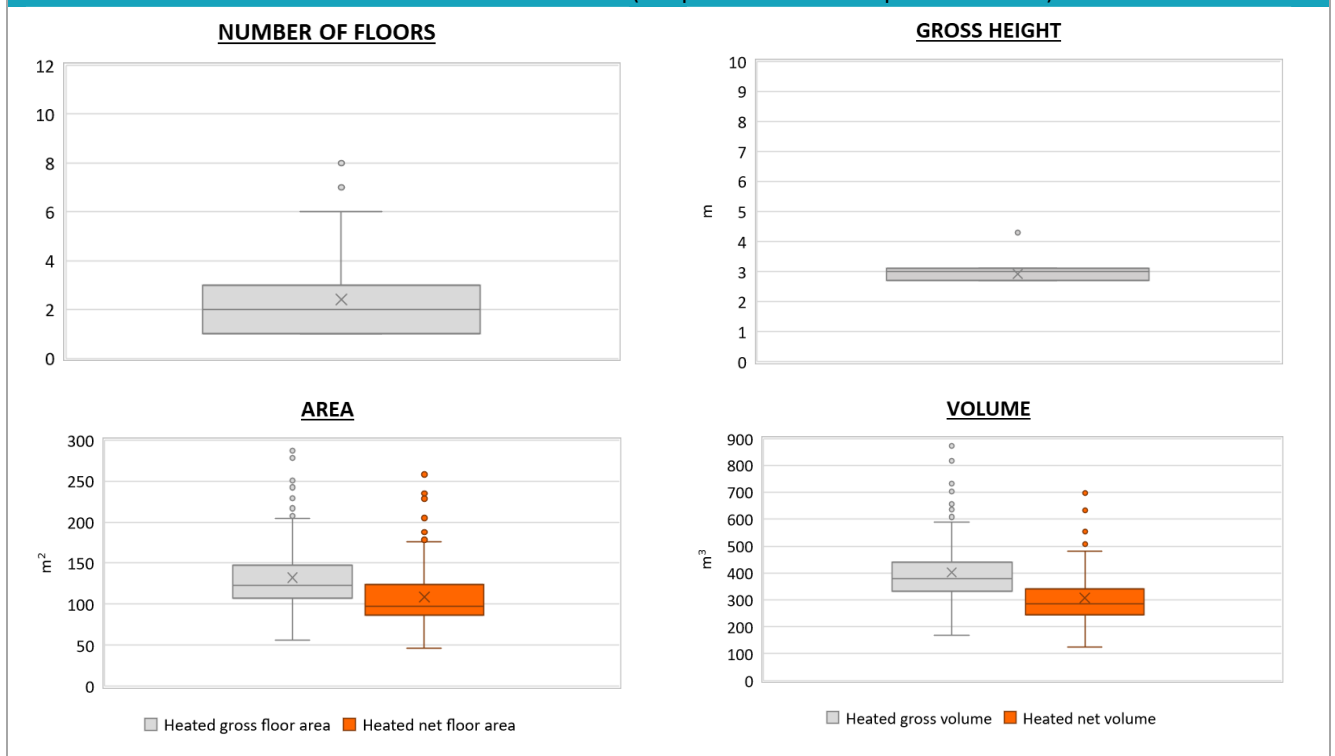


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1961-1970_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1961-1970			
Climatic zone:	C	Number of records:	186	

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	2.92	0.22	2.70	3.00	3.10
	Heated gross floor area	$A_{H,g}$	m ²	132.08	41.91	107.11	122.59	147.21
	Heated net floor area	$A_{H,n}$	m ²	108.63	35.58	87.09	97.85	123.64
	Heated gross volume	$V_{H,g}$	m ³	405.16	115.86	331.99	379.00	441.36
	Heated net volume	$V_{H,n}$	m ³	307.13	92.06	244.05	286.02	342.14
THERMAL SYSTEMS	Heating efficiency or COP	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H,gen}$	kW	19.30	9.46	12.00	24.00	25.00
	Cooling efficiency or EER	$\eta_{C,gen}$ 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	12.14	11.26	1.50	2.00	24.00

* These values refer to the apartment scale

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



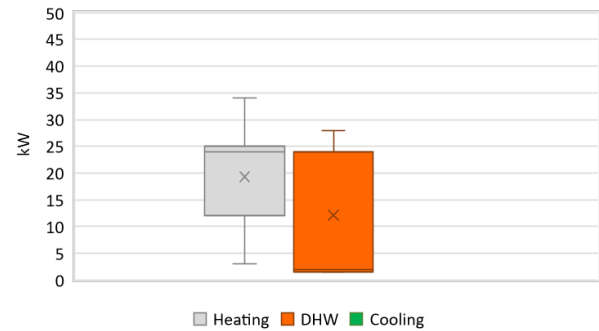
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1961-1970_C_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1970	
Climatic zone:	C	
Number of records:		186

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

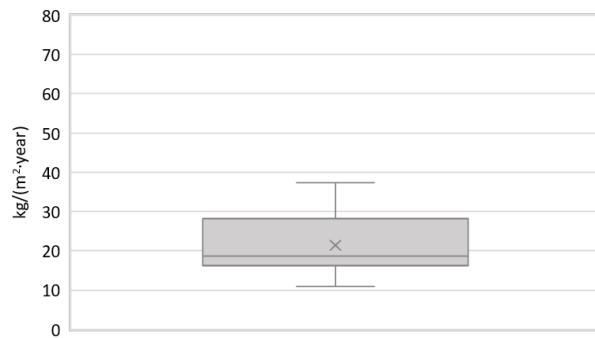
DHW SUPPLY TEMPERATURE



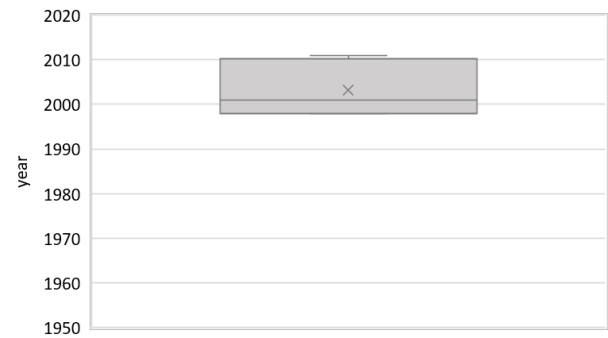
SYSTEM POWER



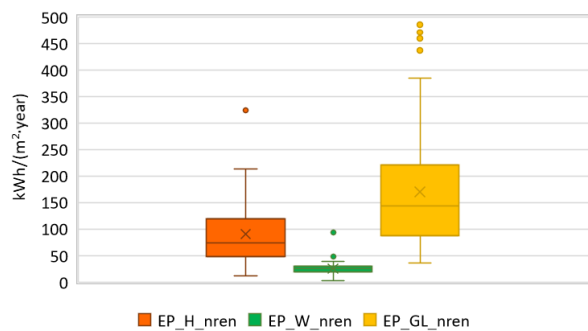
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

