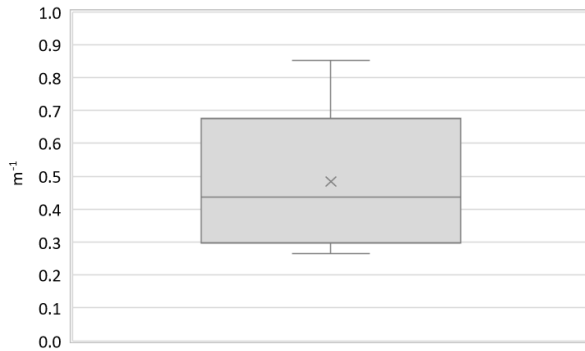


Region:	Calabria					Archetype code: RES_APPBLOCK_ 1991-2000_E_CAL		
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1991-2000							
Climatic zone:	E	Number of records:			18			
Description (the codes associated with walls and slabs refer to 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	-	1.72	1.23	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	0.19	0.30	0.44	0.68
	WWR – North orientation	WWR_N	-	0.21	0.13	0.09	0.17	0.32
	WWR – South orientation	WWR_S	-	0.17	0.09	0.10	0.16	0.29
	WWR – East orientation	WWR_E	-	0.25	0.11	0.13	0.23	0.35
	WWR – West orientation	WWR_W	-	0.26	0.16	0.14	0.25	0.34
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.15	0.05	0.11	0.13	0.18
	ENVELOPE	Roof type	-					
U-value of the roof		$U_{\text{fl;up}}$	W/(m ² ·K)	0.93	0.65	0.36	0.94	1.30
External walls type		Hollow brick masonry: 89%, Solid brick masonry: 11%						
U-value of the wall		U_{wl}	W/(m ² ·K)	0.94	0.50	0.60	0.89	1.11
Slab on ground floor type		-						
U-value of the floor		$U_{\text{fl;lw}}$	W/(m ² ·K)	0.81	0.62	0.32	0.78	1.03
Windows type		Double glazing, wooden frame: 33%, Double glazing, aluminum frame, no thermal break: 28%, Double glazing, aluminum frame with thermal break: 16%, Single glazing, wooden frame: 6%, Single glazing, aluminum frame: 6%, Double glazing, PVC frame: 6%, Unknown: 5%						
U-value of the windows		U_{w}	W/(m ² ·K)	3.24	1.12	2.58	2.90	3.48
Shading system type	Roller blinds: 50%, Shutter: 33%, Curtains: 6%, Unknown: 11%							
GAINS and VENTILATION	Occupancy density	O_{C}	person/m ²	0.037	0.014	0.029	0.037	0.046
	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: 67%, Condensing Boiler: 17%, Fireplace: 16%						
	Daily operating time of the heating system *	t_{H}	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 67%, Solid biomass: 16%, LPG: 11%, Gas Oil 6%						
	Heating emission sub-system	Radiators: 94%, Fan coil: 6%						
	Cooling system type	Absent: 100%						
	Daily operating time of the cooling system	t_{C}	h	-	-	-	-	-
	Cooling emission sub-system	-						
	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							

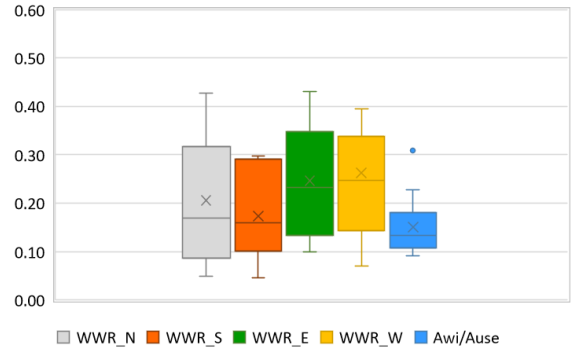
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1991-2000_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1991-2000	
Climatic zone:	E	
Number of records:		18

Numerical variables – GEOMETRY

COMPACTNESS RATIO

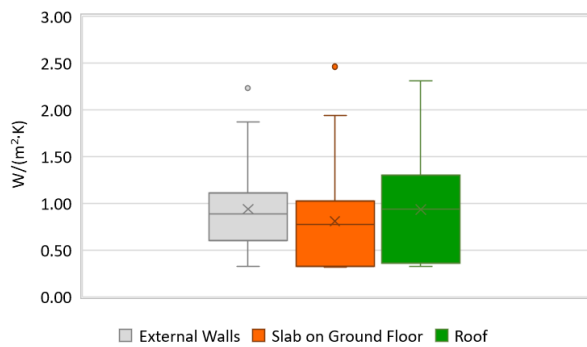


WINDOWS TO WALL RATIO

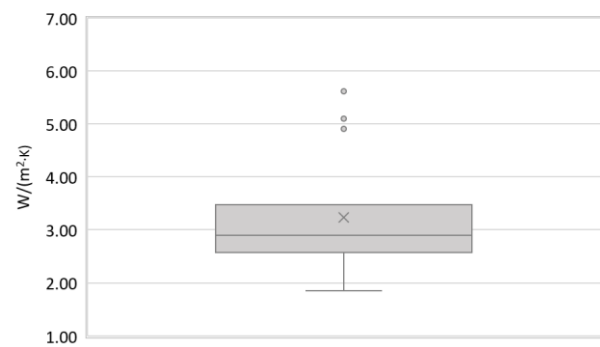


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

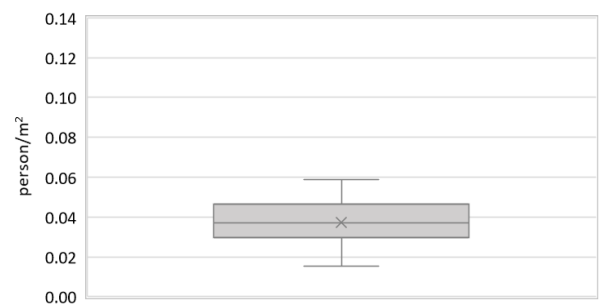


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

AIR EXCHANGE RATE



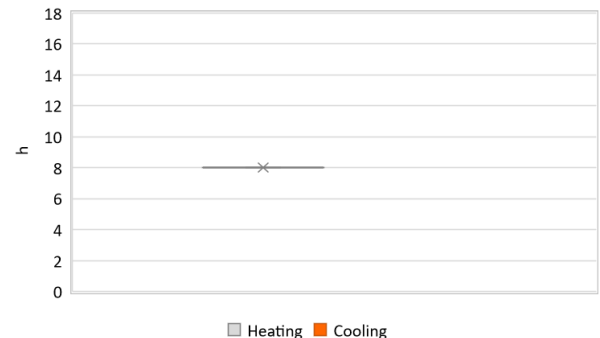
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

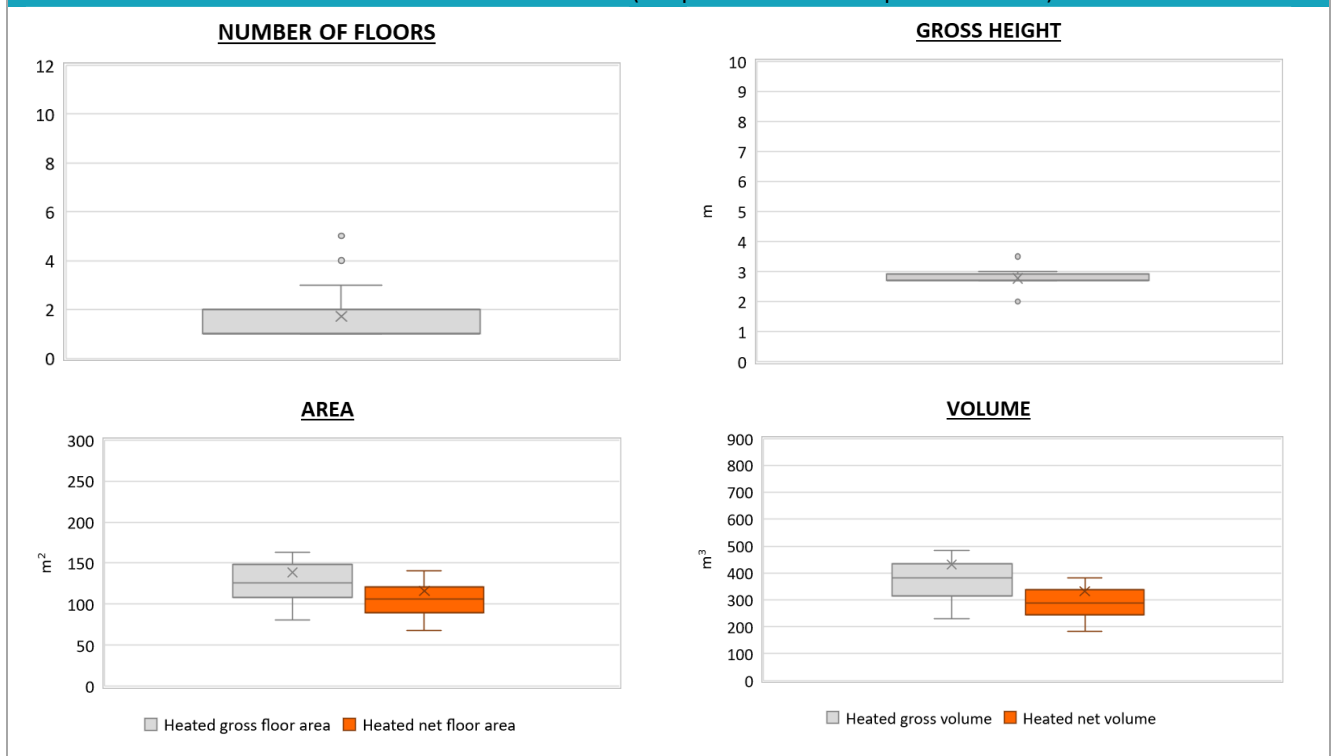


Region:	Calabria			Archetype code: RES_APPBLOCK_ 1991-2000_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1991-2000			
Climatic zone:	E	Number of records:	18	

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	2.78	0.28	2.70	2.70	2.93
	Heated gross floor area	$A_{H,g}$	m ²	138.72	64.80	107.78	125.90	148.86
	Heated net floor area	$A_{H,n}$	m ²	116.04	55.19	89.79	106.36	121.13
	Heated gross volume	$V_{H,g}$	m ³	431.90	276.61	313.28	381.93	434.76
	Heated net volume	$V_{H,n}$	m ³	332.22	208.69	244.25	287.17	338.74
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	28.16	8.31	23.90	27.00	32.75
	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)



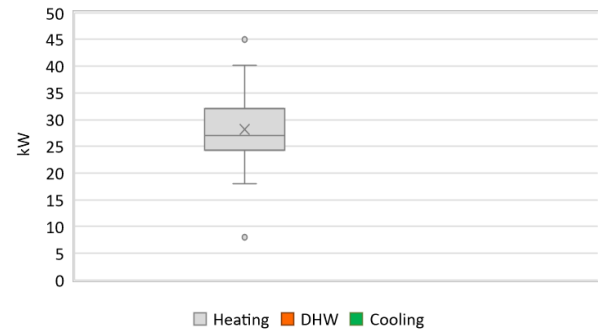
Region:	Calabria	Archetype code: RES_APPBLOCK_ 1991-2000_E_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1991-2000	
Climatic zone:	E	
Number of records:		18

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

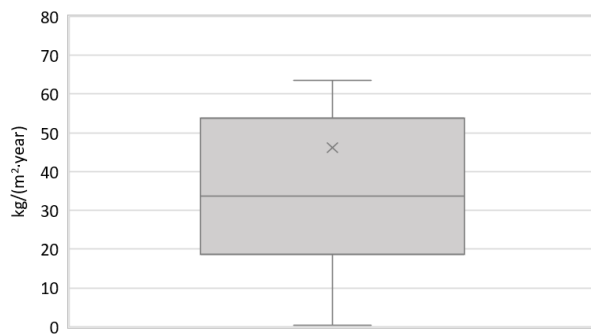
DHW SUPPLY TEMPERATURE



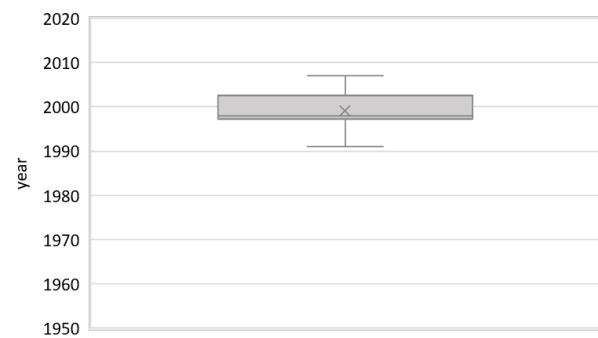
SYSTEM POWER



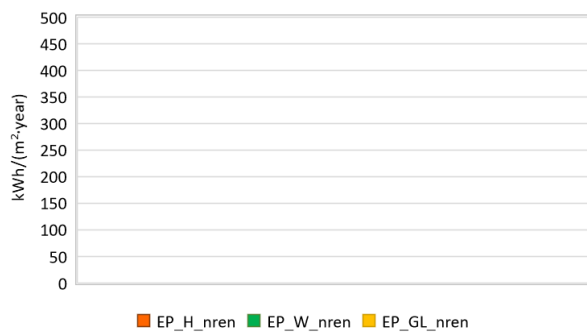
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

