Region:	Liguria			**Archetype code:** RES_APPBLOCK_ 2001-_F_LIG
Building category:	Residential buildings – Apartments in multi-family block			
Period of construction:	2001-			
Climatic zone:	F	**Number of records:**	13	

Description:

External walls: no data available
Roof slabs: no data available

Data sources: EPC databases (100%)

	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Q2 (Median value)	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	-	-	-	-	-
	Gross height	H_g	m	-	-	-	-	-
	Footprint area	$A_{footprint}$	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	$A_{env}/V_{H;g}$	m^{-1}	0.74	0.29	0.50	0.75	0.92
	WWR – North orientation	WWR_N	-	-	-	-	-	-
	WWR – South orientation	WWR_S	-	-	-	-	-	-
	WWR – East orientation	WWR_E	-	-	-	-	-	-
	WWR – West orientation	WWR_W	-	-	-	-	-	-
	Window to useful floor area ratio	A_{wi}/A_{use}	-	-	-	-	-	-
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fl;up}$	$W/(m^2 \cdot K)$	0.99	0.76	0.33	0.69	1.89
	External walls type	-						
	U-value of the wall	U_{wl}	$W/(m^2 \cdot K)$	0.69	0.38	0.29	0.78	0.93
	Slab on ground floor type	-						
	U-value of the floor	$U_{fl;lw}$	$W/(m^2 \cdot K)$	-	-	-	-	-
	Windows type	-						
	U-value of the windows	U_W	$W/(m^2 \cdot K)$	3.30	1.20	2.30	3.27	4.50
	Shading system type	-						
GAINS and VENTILATION	Occupancy density *	O_C	$person/m^2$	UNI EN 16798-1 - Table A.19				
	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	-						
	Heating generator	Condensing boiler: 38%; Traditional boiler: 31%; unknown: 31%						
	Daily operating time of the heating system *	No limitations						
	Energy carrier	Natural gas: 54%; Unknown: 31%; Electricity and natural gas: 15%						
	Heating emission sub-system	Radiators: 61%; Unknown: 31%; Radiant panels: 8%						
	Cooling system type	-						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 54%; Condensing boiler: 31%; Electric boiler: 15%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

Region:	Liguria			**Archetype code:**
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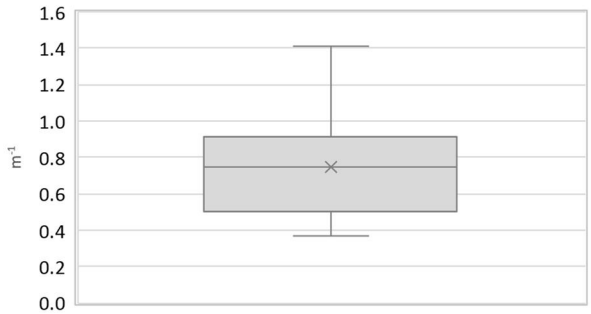
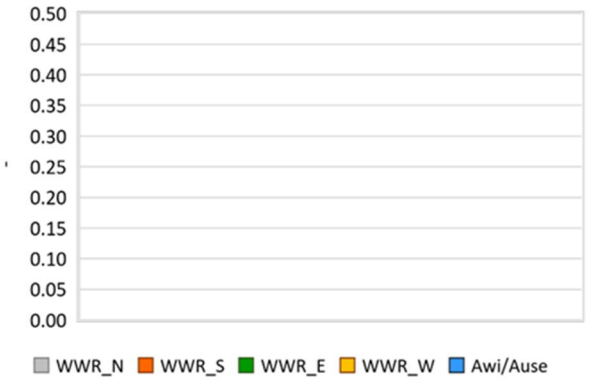
Numerical variables – GEOMETRY

COMPACTNESS RATIO

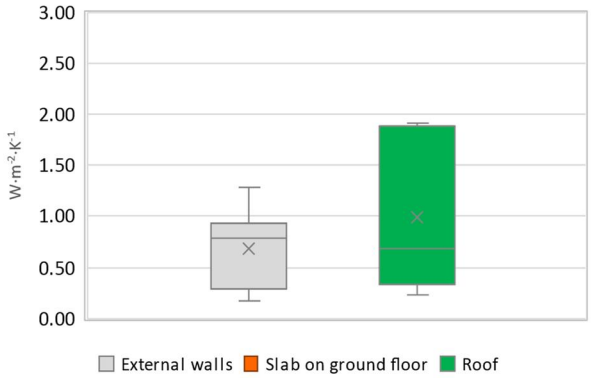


WINDOWS TO WALL RATIO

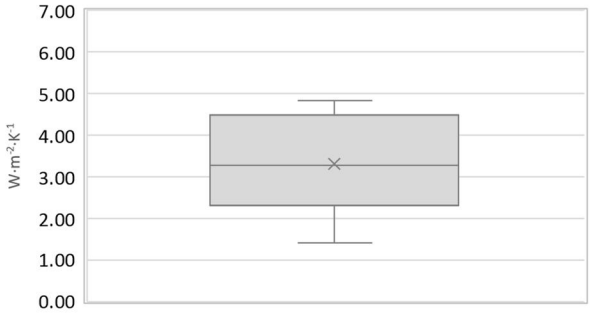


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



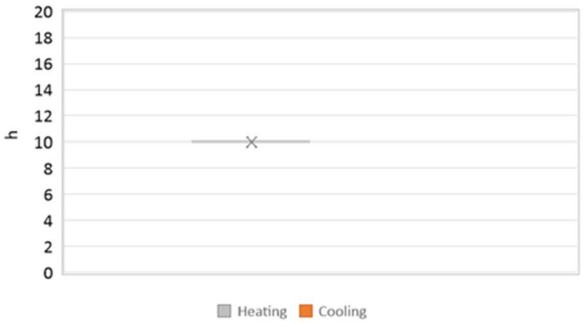
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

AIR EXCHANGE RATE

OCCUPANCY DENSITY

INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME

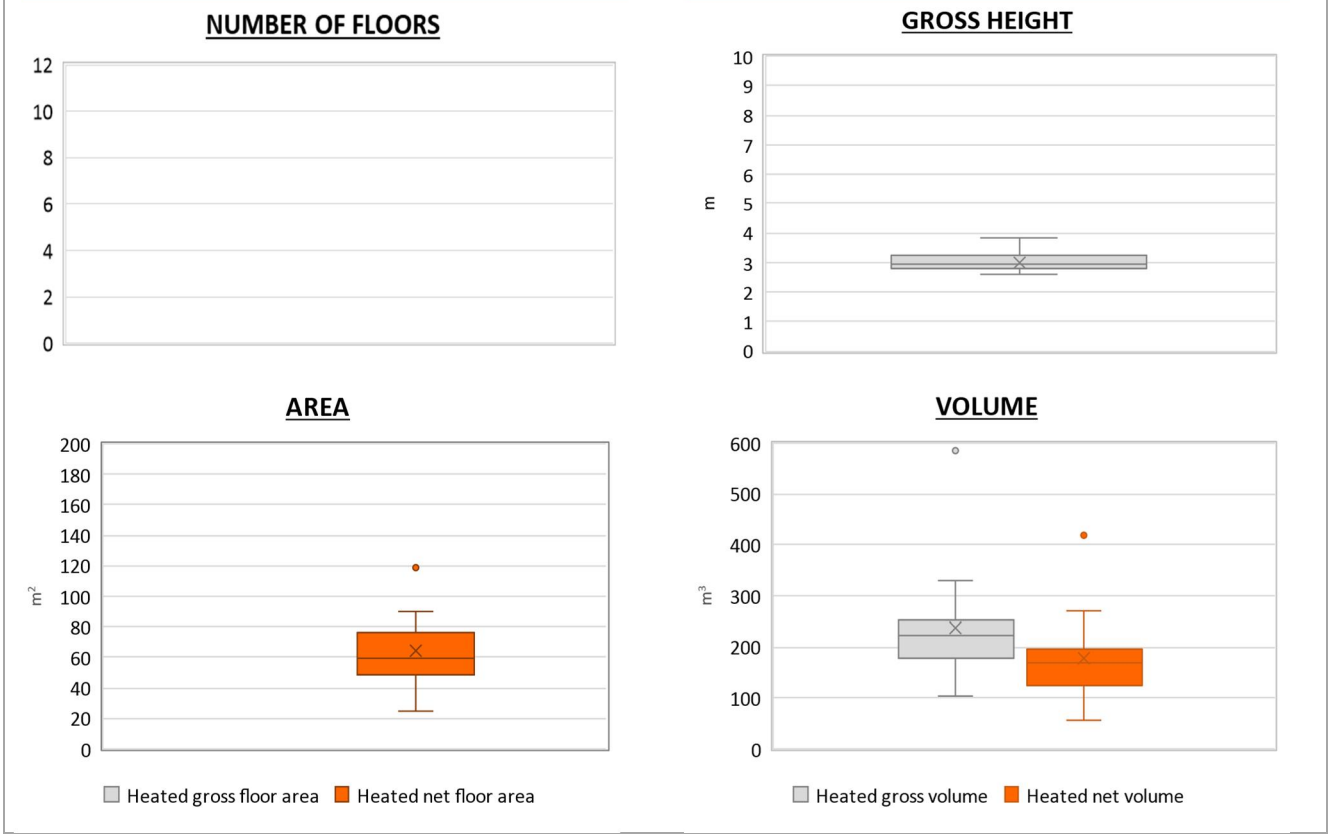


Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 2001-_F_LIG
Period of construction:	2001-			
Climatic zone:	F	**Number of records:**	13	

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	3.0	0.3	2.8	3.0	3.0
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	64.2	23.9	48.0	59.0	76.3
	Heated gross volume	$V_{H;g}$	m³	238.4	119.1	177.3	223.0	253.6
	Heated net volume	$V_{H;n}$	m³	178.8	89.6	124.0	169.6	196.8
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	21.3	6.9	16.5	21.0	26.0
	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	-	-	-	-	-
	DHW system power *	$P_{W;gen}$	kW	15.3	9.7	3.9	18.0	24.0
	* These values refer to the apartment scale							

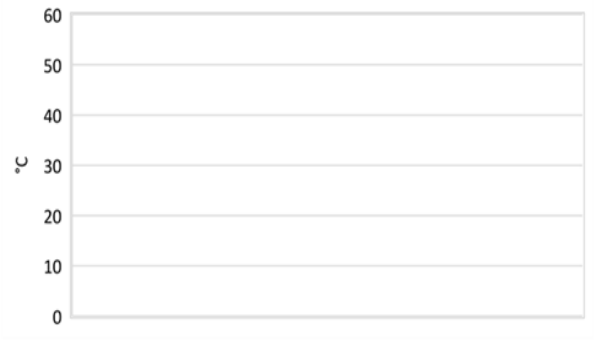
Additional data: GEOMETRY (the plots refer to the apartment scale)



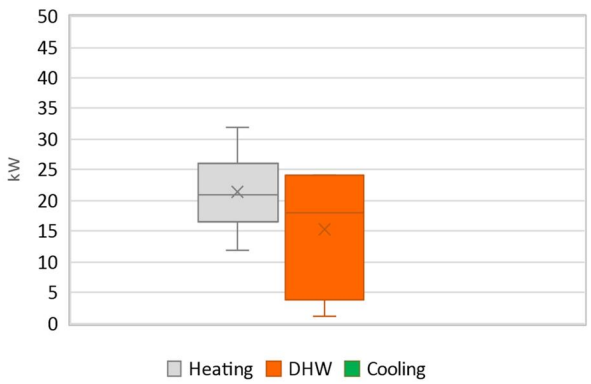
Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 2001-_F_LIG
Period of construction:	2001-			
Climatic zone:	F	**Number of records:**	13	

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

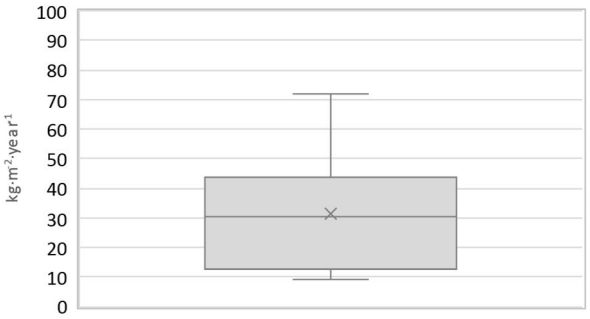
DHW SUPPLY TEMPERATURE



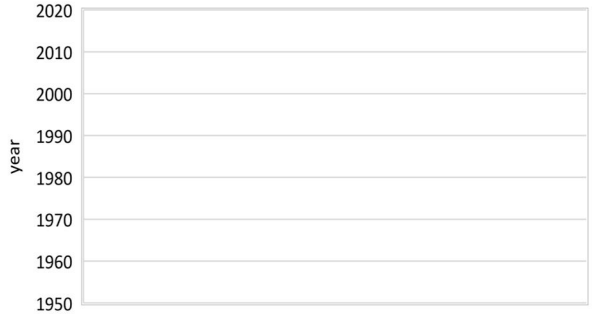
SYSTEM POWER



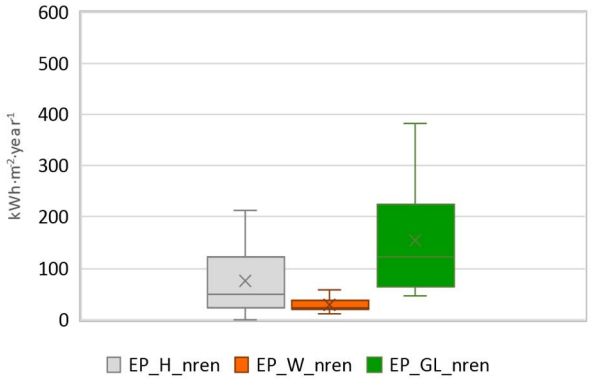
CO_2 EMISSION



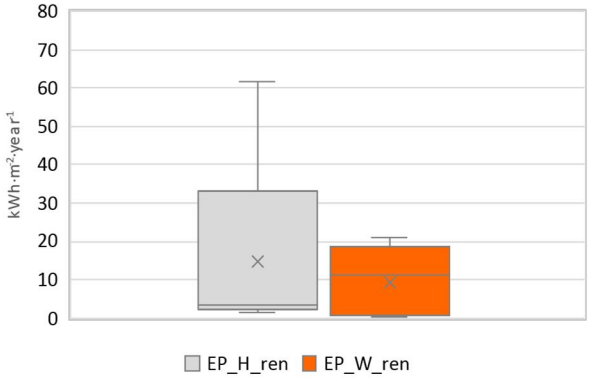
HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE



NOTE: Sample size of the analysed data.

Compactness ratio: 13; U-value of the roof: 8; U-value of the wall: 12; U-value of the windows: 13; Inter-storey height: 13; Heated net floor area: 13; Heated gross volume: 13; Heated net volume: 13; Total heating power: 6; DHW system power: 8; CO2 Emission: 13; EP_H_nren: 11; EP_W_nren: 13; EP_GL_nren: 13; EP_H_ren: 5; EP_W_ren: 7