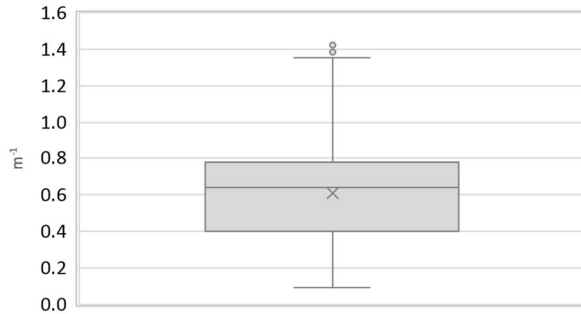


Region:	Liguria					Archetype code: RES_APPBLOCK_ 1991-2000_C_LIG		
Building category:	Residential buildings – Apartments in multi-family block							
Period of construction:	1991-2000							
Climatic zone:	C	Number of records:		817				
Description: External walls: no data available Roof slabs: no data 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	$A_{\text{footprint}}$	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	0.61	0.24	0.40	0.64	0.78
	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}	-	0.11	0.03	0.09	0.10	0.12
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi;up}$	W/(m ² ·K)	1.24	0.52	0.85	1.30	1.64
	External walls type	-						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.03	0.46	0.66	1.03	1.27
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi;lw}$	W/(m ² ·K)	1.42	0.41	1.18	1.54	1.59
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	3.84	1.13	3.00	3.71	4.84
GAINS and VENTILATION	Shading system type	-						
	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: 98%; Mechanical: 2%						
THERMAL SYSTEMS	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
	Heating system type	Unknown: 94%; Autonomous: 6%						
	Heating generator	Traditional boiler: 46%; Unknown: 36%; Electric heating: 9%; Condensing boiler: 5%; Air-source heat pump: 3%; Fireplace: 1%						
	Daily operating time of the heating system *	t_H	h	10	0	10	10	10
	Energy carrier	Unknown: 37%; Natural gas: 34%; Electricity: 13%; Electricity and natural gas: 8%; LPG 6%; Electricity and solid biomass: 1%; Gas Oil: 1%						
	Heating emission sub-system	Radiators: 61%; Unknown: 35%; Air Ducts: 2%; Fan-coil: 1%; Radiant panels: 1%						
	Cooling system type	Unknown: 93%; Heat pump air-air: 6%; Heat pump air-water: 1%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 81%; Condensing boiler: 13%; Electric boiler: 4%; Electric heat pump: 1%; Natural gas boiler: 1%						
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

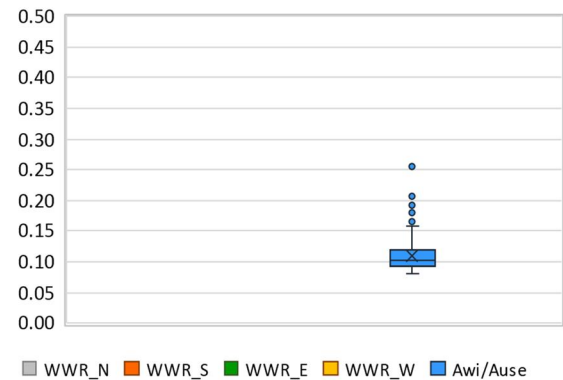
Region:	Liguria	Archetype code: RES_APPBLOCK_ 1991-2000_C_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1991-2000	
Climatic zone:	C	
Number of records:		817

Numerical variables – GEOMETRY

COMPACTNESS RATIO

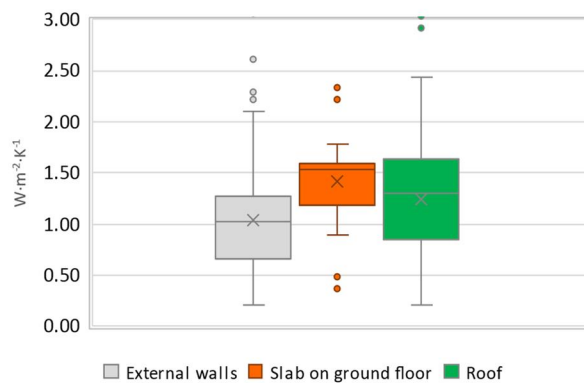


WINDOWS TO WALL RATIO

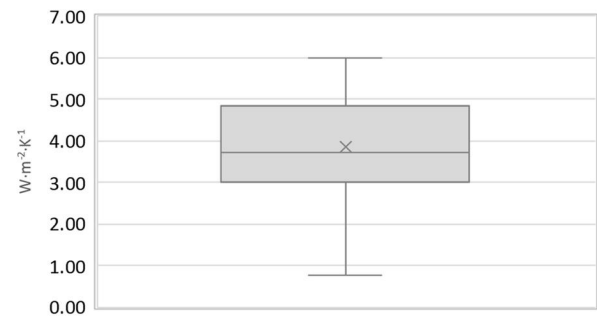


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



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

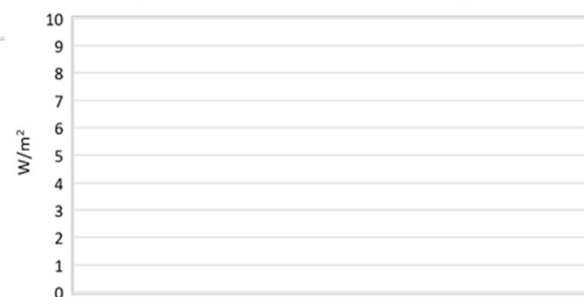
AIR EXCHANGE RATE



OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



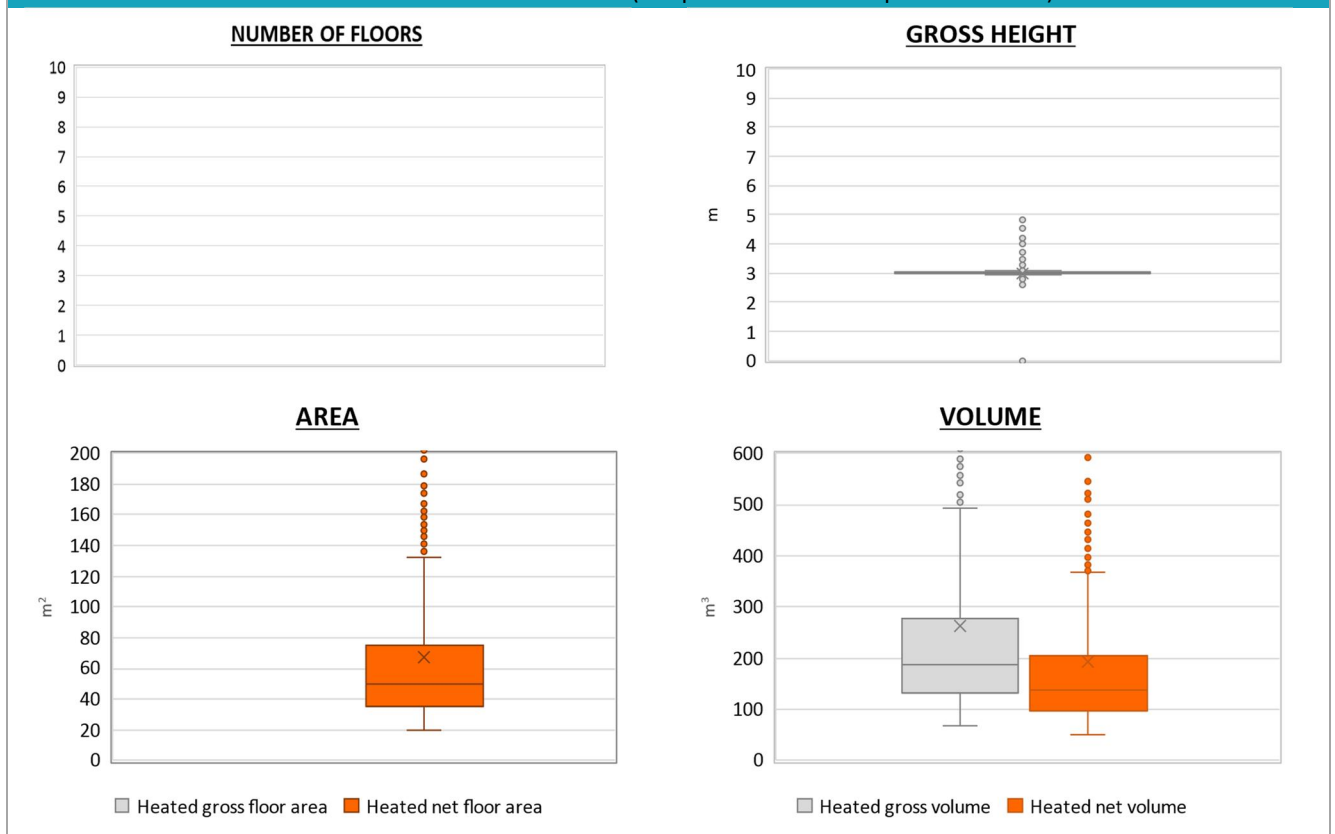
DAILY OPERATING TIME



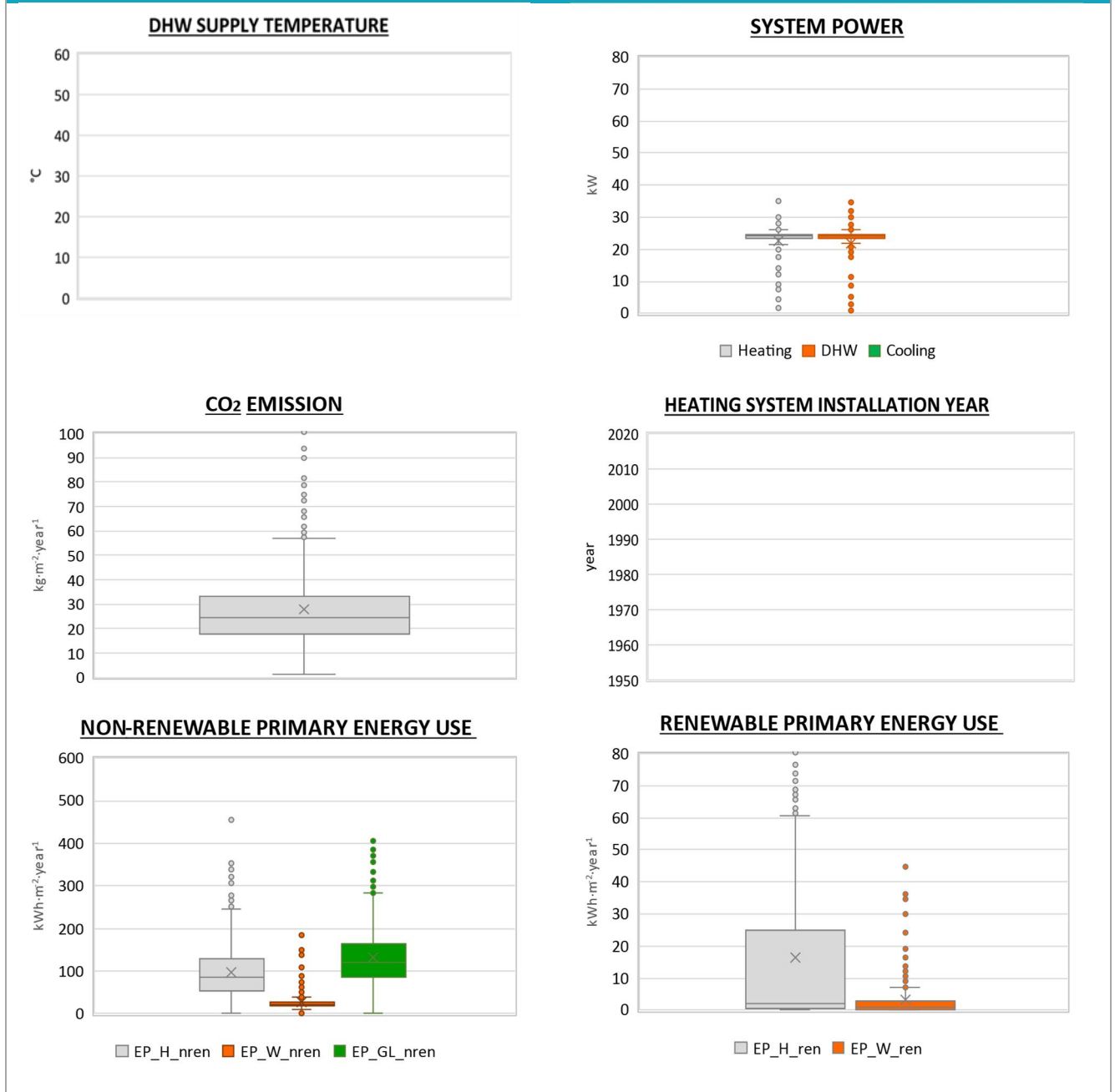
Region:	Liguria	Archetype code: RES_APPBLOCK_ 1991-2000_C_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1991-2000	
Climatic zone:	C	
Number of records:		817

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	3.1	0.2	3.0	3.0	3.0
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	67.3	74.0	35.8	50.0	75.0
	Heated gross volume	$V_{H,g}$	m ³	263.7	364.5	132.3	187.3	277.4
	Heated net volume	$V_{H,n}$	m ³	192.2	249.7	97.7	138.2	206.1
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	22.6	5.9	23.3	24.0	24.5
	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	-	-	-	-	-
	DHW system power *	$P_{W,gen}$	kW	22.0	6.9	23.3	24.0	24.4
* These values refer to the apartment scale								

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



Region:	Liguria	Archetype code: RES_APPBLOCK_ 1991-2000_C_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1991-2000	
Climatic zone:	C	
Number of records:		817

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


NOTE: Sample size of the analysed data.

Compactness ratio: 803; Window to useful floor area ratio: 147; U-value of the roof: 189; U-value of the wall: 728; U-value of the floor: 44; U-value of the windows: 817; Inter-storey height: 803; Heated net floor area: 803; Heated gross volume: 803; Heated net volume: 803; Total heating power: 351; DHW system power: 506; CO₂ Emission: 811; EP_H_nren: 813; EP_W_nren: 775; EP_GL_nren: 812; EP_H_ren: 561; EP_W_ren: 318