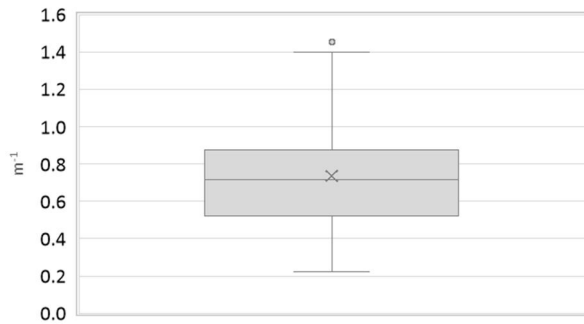


Region:	Liguria					Archetype code: RES_APPBLOCK_ 1951-1960_F_LIG		
Building category:	Residential buildings – Apartments in multi-family block							
Period of construction:	1951-1960							
Climatic zone:	F	Number of records:			94			
Description: <u>External walls</u> : no data available <u>Roof slabs</u> : 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	0.74	0.27	0.52	0.72	0.88
	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	$A_{\text{wi}}/A_{\text{use}}$	-	0.11	0.02	0.09	0.10	0.12
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{\text{fi;up}}$	W/(m ² ·K)	-	-	-	-	-
	External walls type	-						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.32	0.61	1.03	1.29	1.61
	Slab on ground floor type	-						
	U-value of the floor	$U_{\text{fi;lw}}$	W/(m ² ·K)	-	-	-	-	-
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	4.04	1.35	3.20	4.21	5.20
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	Unknown: 99%; Autonomous: 1%						
	Heating generator	Unknown: 70%; Traditional boiler: 17%; Fireplace: 9%; Condensing boiler: 4%						
	Daily operating time of the heating system *	No limitations						
	Energy carrier	Unknown: 73%; Electricity and solid biomass: 7%; Natural gas: 6%; Electricity and natural gas: 5%; LPG: 4%; Gas Oil: 3%; Solid biomass: 2%						
	Heating emission sub-system	Unknown: 71%; Radiators: 22%; Air Ducts: 5%; Convectors: 2%						
	Cooling system type	-						
	Daily operating time of the cooling system *	t_c	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 73%; Electric boiler: 19%; Natural gas boiler: 3%; Condensing boiler: 3%; Electric heat pump: 2%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

Region:	Liguria	Archetype code: RES_APPBLOCK_ 1951-1960_F_LIG
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Number of records:		94

Numerical variables – GEOMETRY

COMPACTNESS RATIO

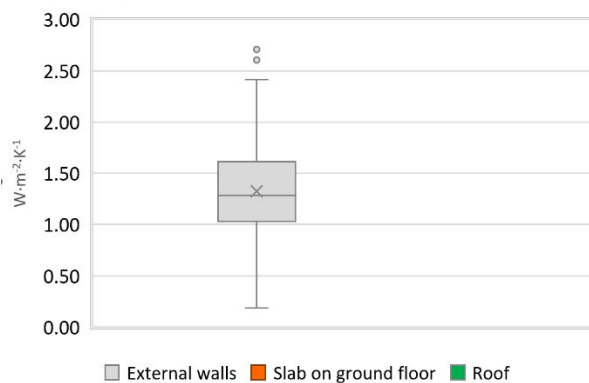


WINDOWS TO WALL RATIO

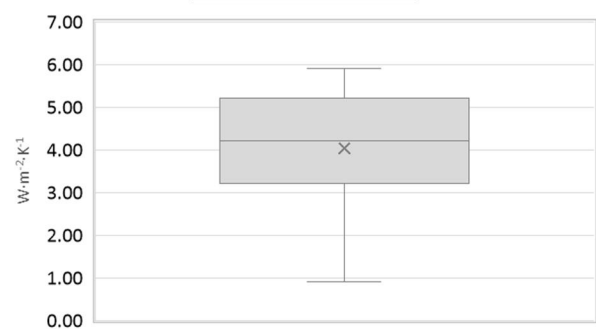


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



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

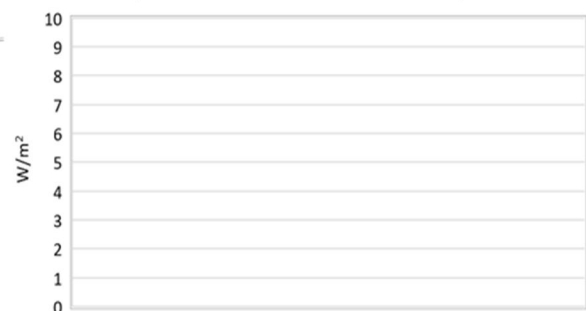
AIR EXCHANGE RATE



OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



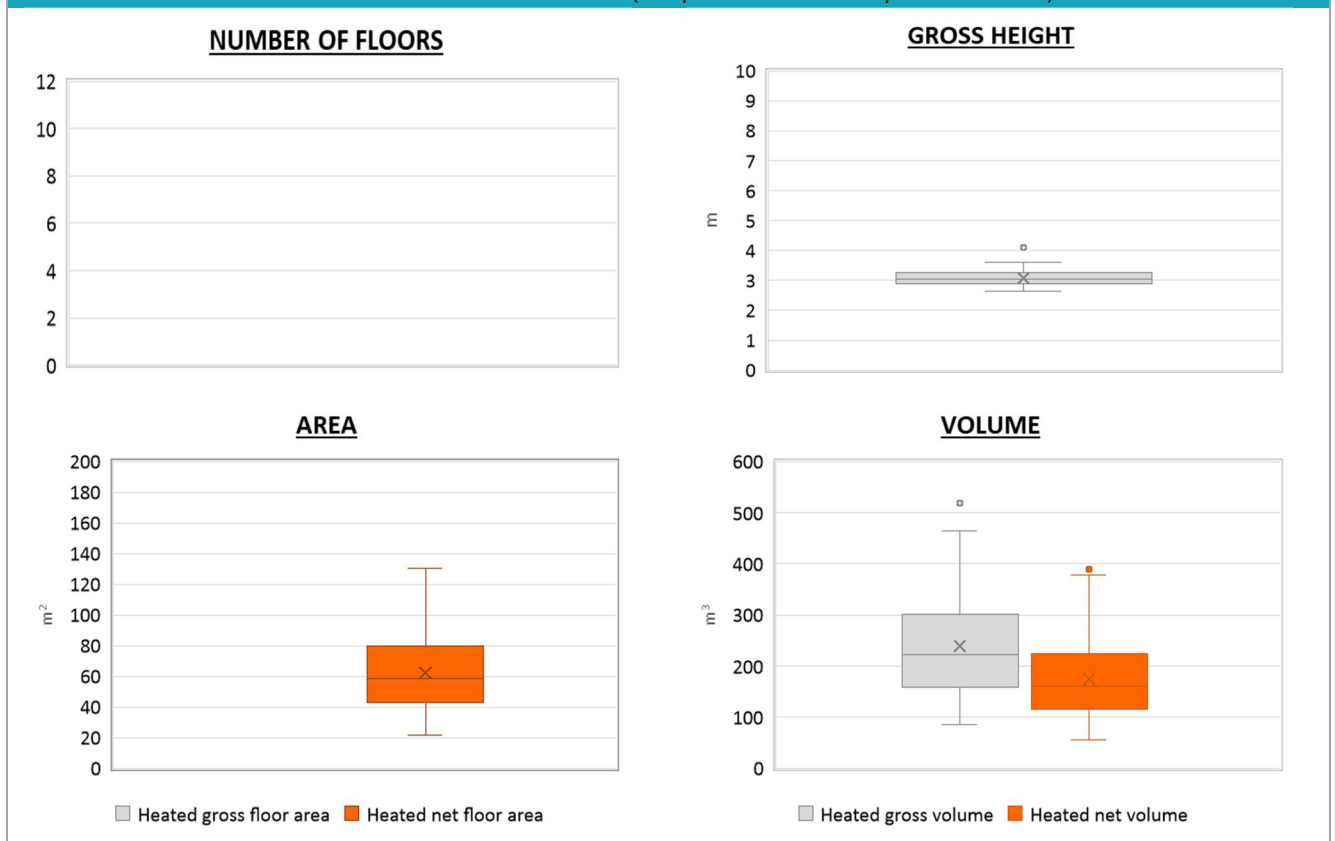
DAILY OPERATING TIME



Region:	Liguria	Archetype code: RES_APPBLOCK_ 1951-1960_F_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1951-1960	
Climatic zone:	F	
Number of records:		94

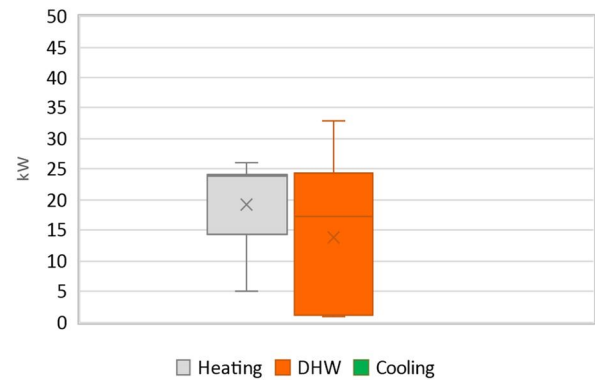
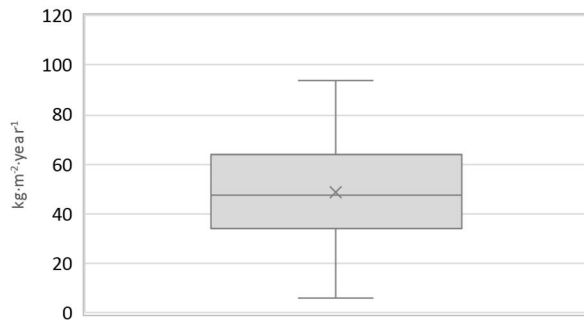
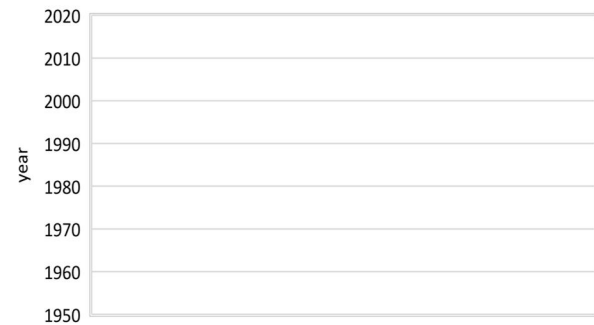
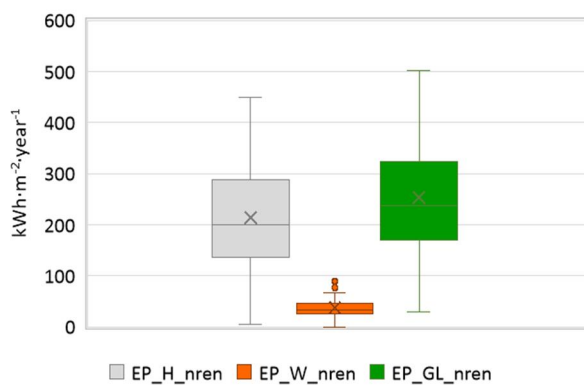
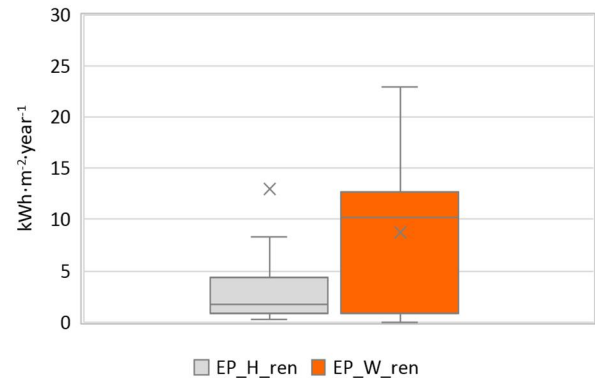
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.1	0.2	2.9	3.1	3.2
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	62.4	23.7	42.8	58.6	79.6
	Heated gross volume	$V_{H,g}$	m ³	239.6	98.2	158.1	222.6	302.2
	Heated net volume	$V_{H,n}$	m ³	174.4	72.6	116.6	161.0	224.4
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	19.3	7.5	14.3	23.9	24.0
	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	13.9	11.7	1.2	17.4	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_ 1951-1960_F_LIG
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Climatic zone:	F	
Number of records:		94

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


NOTE: Sample size of the analysed data.

Compactness ratio: 94; Window to useful floor area ratio: 16; U-value of the wall: 90; U-value of the windows: 94; Inter-storey height: 94; Heated net floor area: 94; Heated gross volume: 94; Heated net volume: 94; Total heating power: 16; DHW system power: 44; CO₂ Emission: 89; EP_H_nren: 94; EP_W_nren: 91; EP_GL_nren: 94; EP_H_ren: 27; EP_W_ren: 54