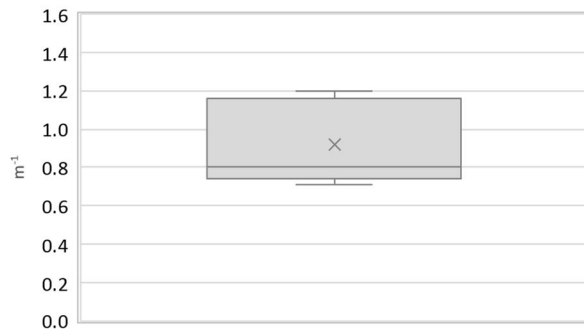


Region:		Liguria					Archetype code: RES_ BLDGS_ 1981-1990_F_LIG	
Building category:		Residential buildings – Entire multifamily blocks						
Period of construction:		1981-1990						
Climatic zone:		F	Number of records:		9			
Description: <u>External walls</u> : no data available <u>Roof slabs</u> : 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	122.0	97.8	54.4	63.5	195.8
	Heated gross volume	$V_{H,g}$	m ³	501.9	401.9	213.2	255.3	887.0
	Heated net volume	$V_{H,n}$	m ³	362.6	299.8	146.2	176.4	653.6
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.92	0.21	0.74	0.80	1.16
	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		$U_{\text{fl;up}}$	W/(m ² ·K)	-	-	-	-	-
External walls type		-						
U-value of the wall		U_{wl}	W/(m ² ·K)	1.57	0.50	1.19	1.43	2.04
Slab on ground floor type		-						
U-value of the floor		$U_{\text{fl;lw}}$	W/(m ² ·K)	-	-	-	-	-
Windows type		-						
U-value of the windows		U_W	W/(m ² ·K)	4.23	1.66	2.32	4.98	5.53
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: 89%; Autonomous: 11%						
	Heating generator	Traditional boiler: 67%; Fireplace: 22%; Unknown: 11%						
	Daily operating time of the heating system *	No limitations						
	Energy carrier	Electricity and solid biomass: 23%; LPG: 22%; Unknown: 22%; Natural gas: 11%; Electricity and gas oil: 11%; Solid biomass: 11%						
	Heating emission sub-system	Radiators: 78%; Air Ducts: 11%; Unknown: 11%						
	Cooling system type	-						
	Daily operating time of the cooling system *	t_c	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 67%; Electric boiler: 22%; Natural gas boiler: 11%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

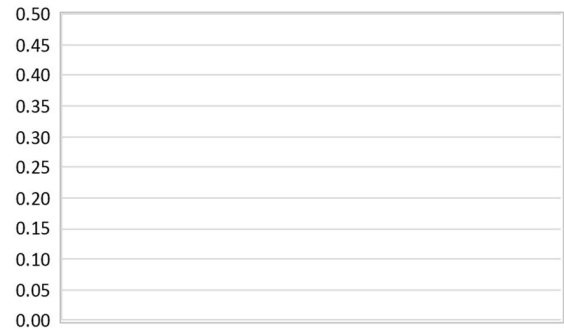
Region:	Liguria	Archetype code: RES_BLDGS_ 1981-1990_F_LIG
Building category:	Residential buildings – Entire multifamily blocks	
Period of construction:	1981-1990	
Climatic zone:	F	
Number of records:		9

Numerical variables – GEOMETRY

COMPACTNESS RATIO



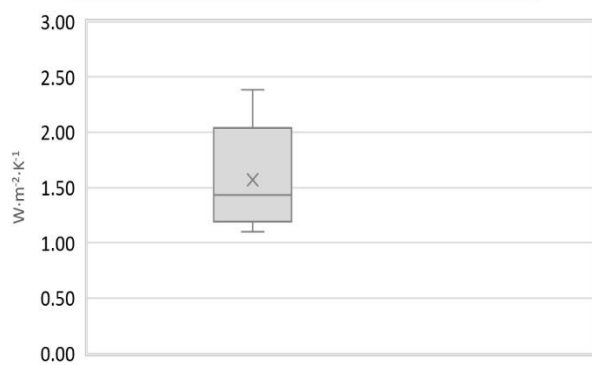
WINDOWS TO WALL RATIO



■ WWR_N ■ WWR_S ■ WWR_E ■ WWR_W ■ Awl/Ause

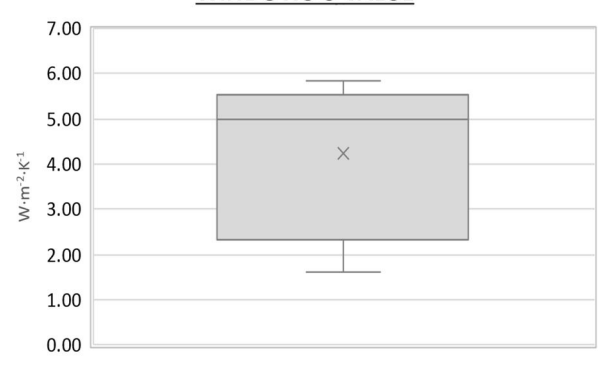
Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



■ External walls ■ Slab on ground floor ■ Roof

WINDOWS U-VALUE

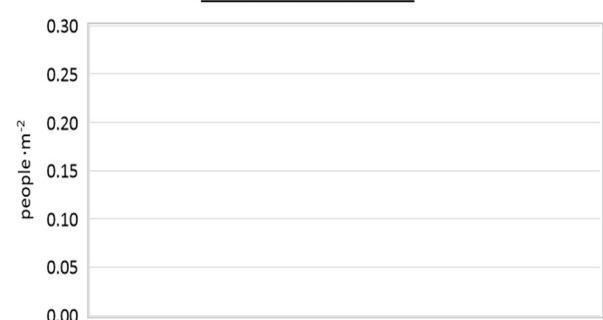


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

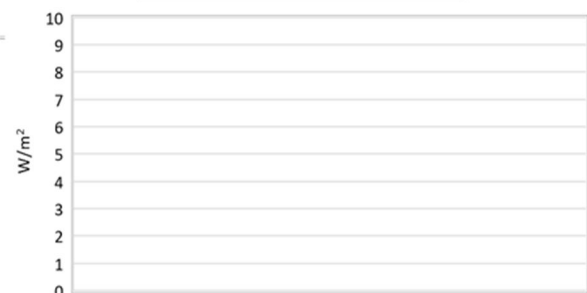
AIR EXCHANGE RATE



OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME



■ Heating ■ Cooling

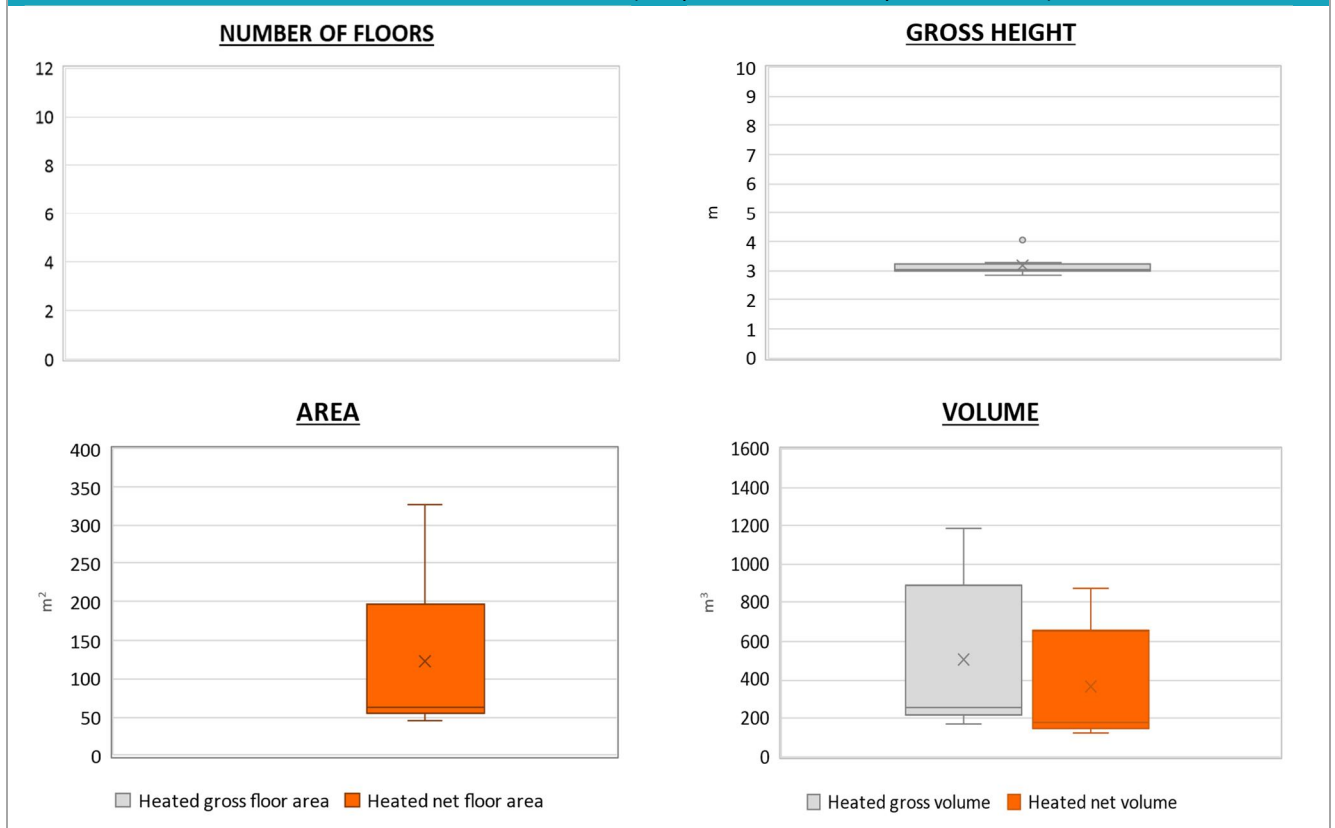


The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

Region:	Liguria	Archetype code: RES_BLDGS_ 1981-1990_F_LIG
Building category:	Residential buildings – Entire multifamily blocks	
Period of construction:	1981-1990	
Climatic zone:	F	
Number of records:		9

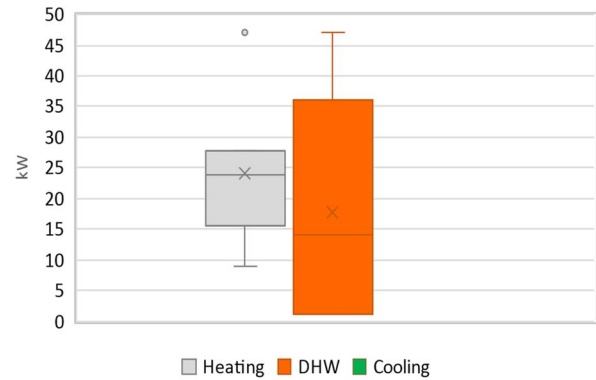
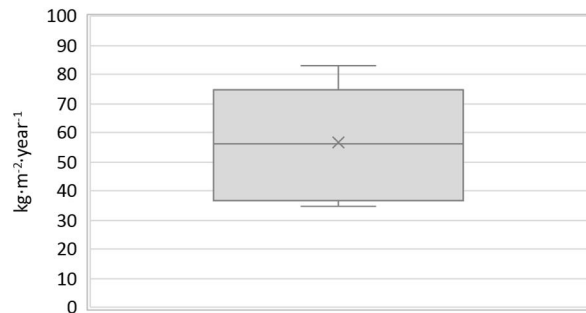
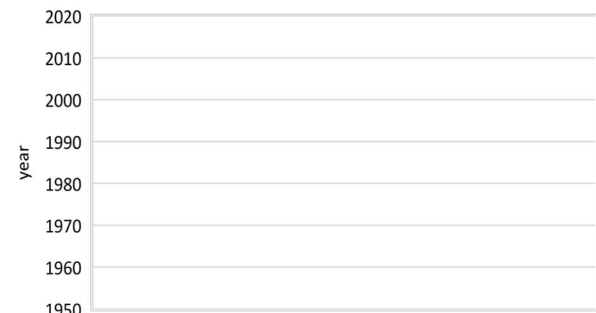
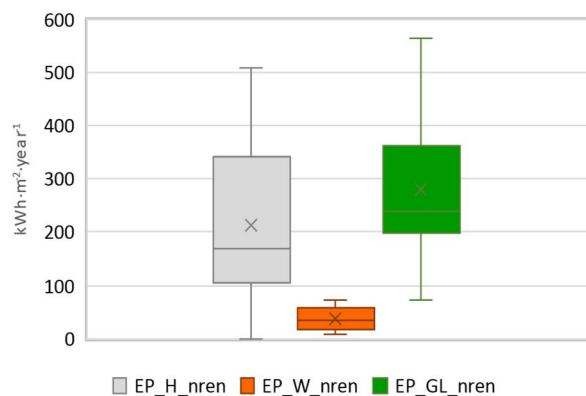
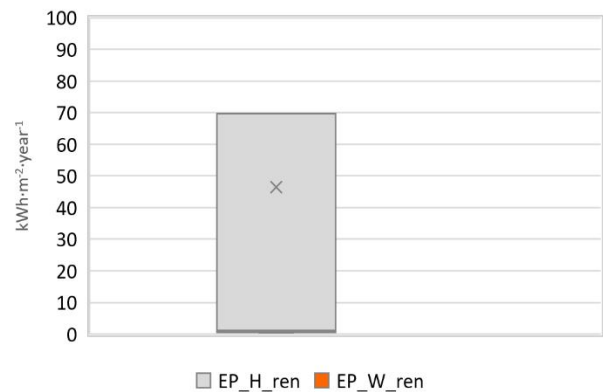
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.2	0.4	3.0	3.1	3.4
	Heated gross floor area	$A_{H;g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m ²	-	-	-	-	-
	Heated gross volume	$V_{H;g}$	m ³	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m ³	-	-	-	-	-
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	24.2	11.4	15.5	23.9	27.8
	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	17.7	19.2	1.2	14.0	36.1
	* These values refer to the apartment scale							

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



Region:	Liguria	Archetype code: RES_BLDGS_ 1981-1990_F_LIG
Building category:	Residential buildings – Entire multifamily blocks	
Period of construction:	1981-1990	
Climatic zone:	F	
Number of records:		9

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: 9; U-value of the roof: 4; U-value of the wall: 9; U-value of the windows: 9; Inter-storey height: 9; Heated net floor area: 9; Heated gross volume: 9; Heated net volume: 9; Total heating power: 8; DHW system power: 5; CO₂ Emission: 6; EP_H_nren: 8; EP_W_nren: 7; EP_GL_nren: 8; EP_H_ren: 6