Region:	Liguria			**Archetype code:** RES_APPBLOCK_ 1981-1990_E_LIG
Building category:	Residential buildings – Apartments in multi-family block			
1981	1981-1990			
Climatic zone:	E	**Number of records:**	269	

Description:

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

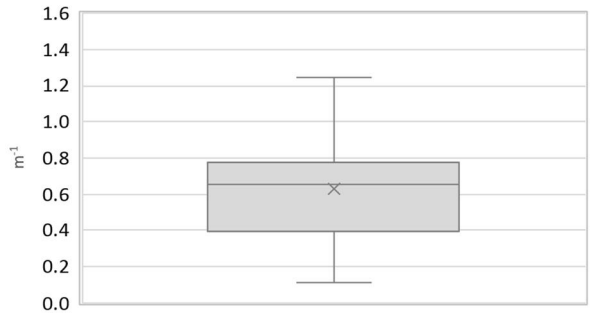
Data sources: EPC databases (100%)

	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}	0.63	0.26	0.40	0.66	0.77
	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}	-	0.13	0.06	0.09	0.10	0.14
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fl;up}$	$W/(m^2 \cdot K)$	1.19	0.69	0.54	1.32	1.81
	External walls type	-						
	U-value of the wall	U_{wl}	$W/(m^2 \cdot K)$	1.15	0.45	0.90	1.18	1.32
	Slab on ground floor type	-						
	U-value of the floor	$U_{fl;lw}$	$W/(m^2 \cdot K)$	1.38	0.48	1.05	1.42	1.69
	Windows type	-						
	U-value of the windows	U_W	$W/(m^2 \cdot K)$	4.18	1.13	3.24	4.35	5.06
	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: 92%; Autonomous: 7%; Centralized: 1%						
	Heating generator	Traditional boiler: 46%; Unknown: 45%; Condensing boiler: 7%; Fireplace: 1%; Air-source heat pump: 1%						
	Daily operating time of the heating system *	t_H	h	14	0	14	14	14
	Energy carrier	Unknown: 44%; Natural gas: 32%; Electricity and natural gas: 17%; LPG: 3%; Electricity and solid biomass: 1%; Gas Oil: 1%; Electricity: 1%; Electricity and gas oil 1%						
	Heating emission sub-system	Radiators: 54%; Unknown: 43%; Air Ducts: 1%; Radiant panels: 1%; Fan-coil: 1%						
	Cooling system type	Unknown: 99%; Heat pump air-air: 1%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 80%; Condensing boiler: 9%; Electric boiler: 8%; Electric heat pump: 2%; Natural gas boiler: 1%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

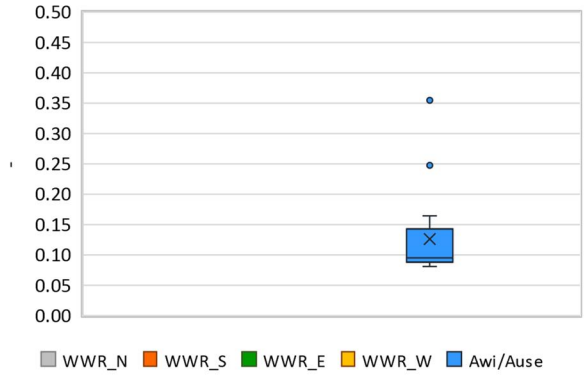
Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1981-1990_E_LIG
1981	1981-1990			
Climatic zone:	E	**Number of records:**	269	

Numerical variables – GEOMETRY

COMPACTNESS RATIO

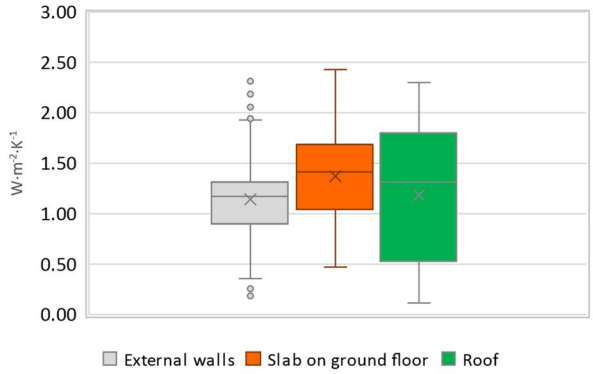


WINDOWS TO WALL RATIO

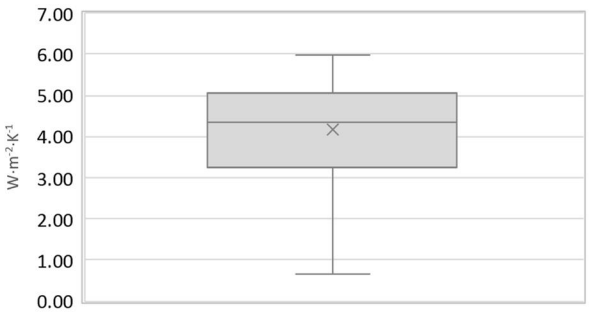


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



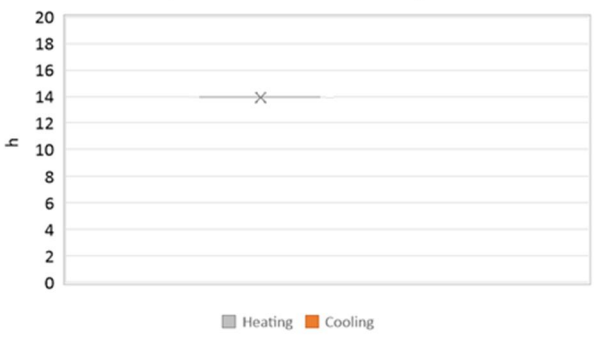
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

AIR EXCHANGE RATE

OCCUPANCY DENSITY

INTERNAL GAINS POWER DENSITY

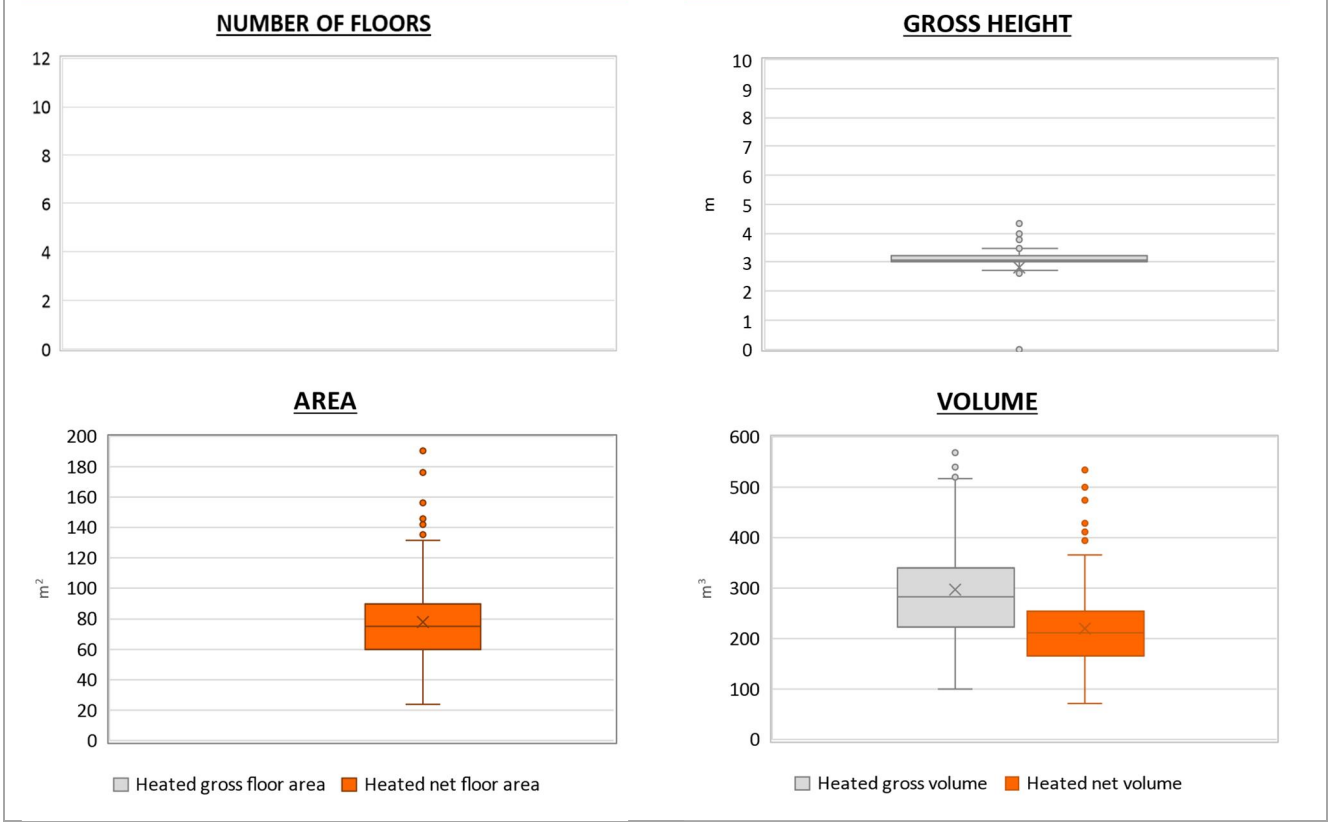
DAILY OPERATING TIME



Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1981-1990_E_LIG
1981	1981-1990			
Climatic zone:	E	**Number of records:**	269	

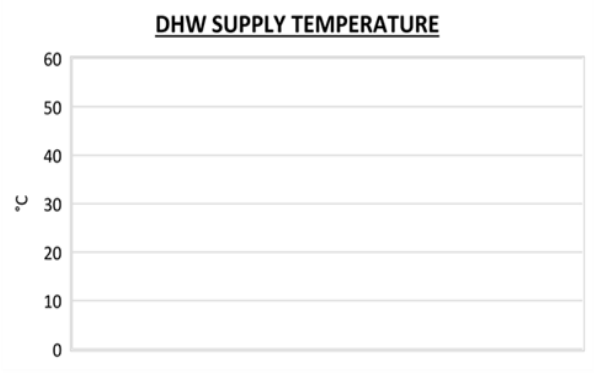
ADDITIONAL DATA								
	Data	**Symbol**	**Unit of measure**	**Mean value**	**Standard deviation**	**Q1 (first quartile)**	**Median value**	**Q3 (third quartile)**
GEOMETRY: apartments	Inter-storey height	H_n	m	3.1	0.2	3.0	3.1	3.2
	Heated gross floor area	$A_{H;g}$	m²					
	Heated net floor area	$A_{H;n}$	m²	78.4	28.2	60.4	75.3	90.1
	Heated gross volume	$V_{H;g}$	m³	298.6	111.0	222.5	284.5	340.7
	Heated net volume	$V_{H;n}$	m³	219.9	78.6	167.4	213.2	254.3
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	24.8	6.1	24.0	24.0	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	21.3	8.5	22.8	24.0	24.3
	* These values refer to the apartment scale							

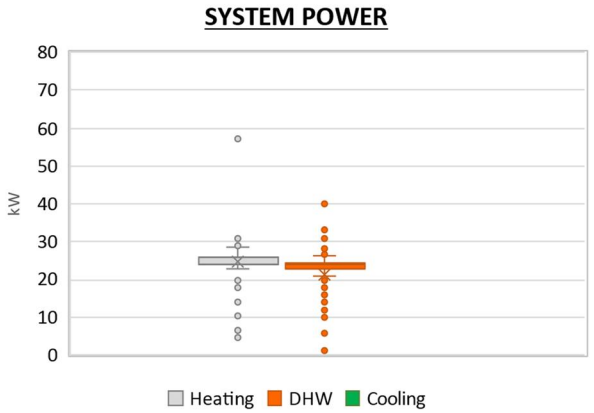
Additional data: GEOMETRY (the plots refer to the apartment scale)

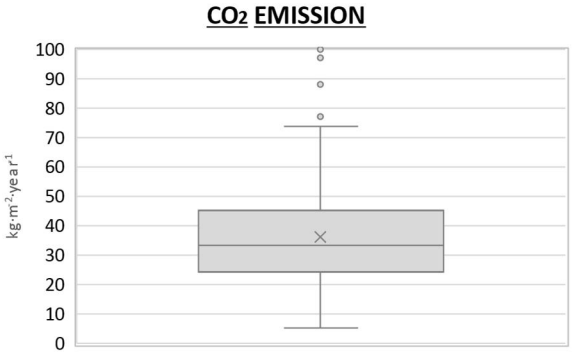


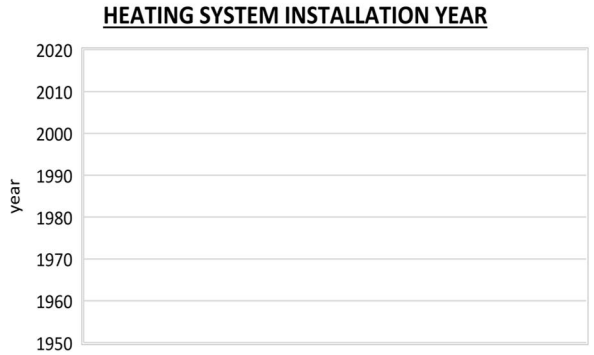
Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1981-1990_E_LIG
1981	1981-1990			
Climatic zone:	E	**Number of records:**	269	

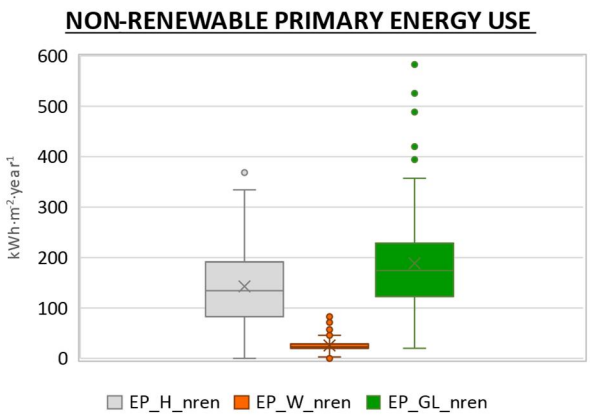
Additional data: other numerical variables that are not included in the archetype

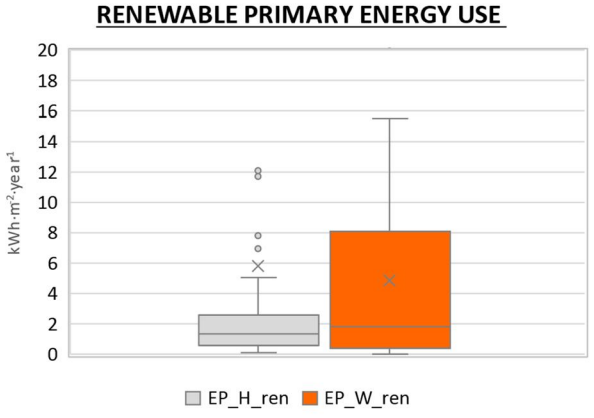












NOTE: Sample size of the analysed data.

Compactness ratio: 242; Window to useful floor area ratio: 22; U-value of the roof: 46; U-value of the wall: 230; U-value of the floor: 23; U-value of the windows: 269; Inter-storey height: 242; Heated net floor area: 242; Heated gross volume: 242; Heated net volume: 242; Total heating power: 111; DHW system power: 201; CO2 Emission: 264; EP_H_nren: 264; EP_W_nren: 247; EP_GL_nren: 269; EP_H_ren: 187; EP_W_ren: 134