Region:	Liguria			**Archetype code:** RES_APPBLOCK_ 1951-1960_C_LIG
Building category:	Residential buildings – Apartments in multi-family block			
Period of construction:	1951-1960			
Climatic zone:	C	**Number of records:**	3784	

Description:

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

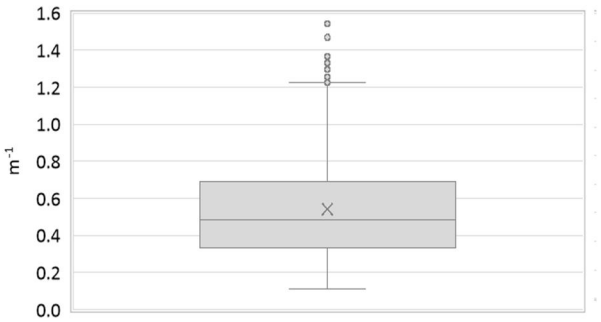
Data sources:
EPC databases (100%)

	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}	0.54	0.83	0.34	0.49	0.69
	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	0.04	0.09	0.10	0.12
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fl;up}$	$W/(m^2 \cdot K)$	1.41	0.56	1.22	1.57	1.73
	External walls type	-						
	U-value of the wall	U_{wl}	$W/(m^2 \cdot K)$	1.24	0.43	1.10	1.22	1.41
	Slab on ground floor type	-						
	U-value of the floor	$U_{fl;lw}$	$W/(m^2 \cdot K)$	1.46	0.41	1.37	1.54	1.66
	Windows type	-						
	U-value of the windows	U_W	$W/(m^2 \cdot K)$	4.07	1.28	3.18	4.33	5.09
	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: 99%; Mechanical: 1%						
	Air exchange rate *	n	h^{-1}	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Unknown: 96%; Autonomous: 4%						
	Heating generator	Traditional boiler: 40%; Unknown: 40%; Condensing boiler: 11%; Air-source heat pump: 8%; Fireplace: 1%						
	Daily operating time of the heating system *	t_H	h	10	0	10	10	10
	Energy carrier	Unknown: 42%; Natural gas: 38%; Electricity and natural gas: 11%; Electricity 8%; Gas Oil: 1%						
	Heating emission sub-system	Radiators: 51%; Unknown: 40%; Air Ducts: 3%; Convectors: 2%; Fan-coil: 2%; Radiant panels: 2%						
	Cooling system type	Unknown: 89%; Heat pump air-air: 11%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	Unknown: 71%; Electric boiler: 14%; Condensing boiler: 9%; Natural gas boiler: 4%; Electric heat pump: 2%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

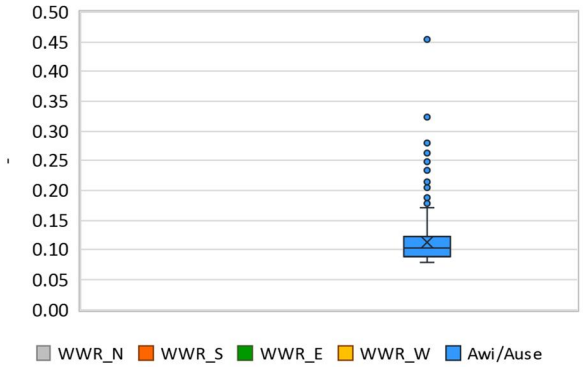
Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1951-1960_C_LIG
Period of construction:	1951-1960			
Climatic zone:	C	**Number of records:**	3784	

Numerical variables – GEOMETRY

COMPACTNESS RATIO

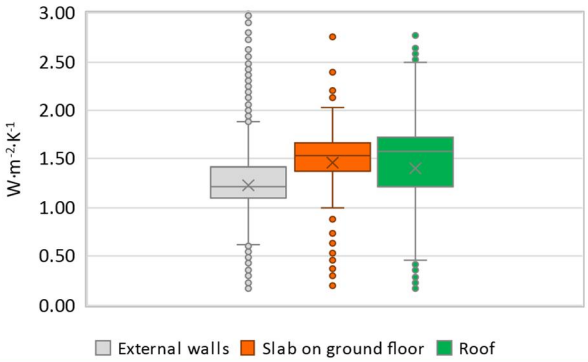


WINDOWS TO WALL RATIO

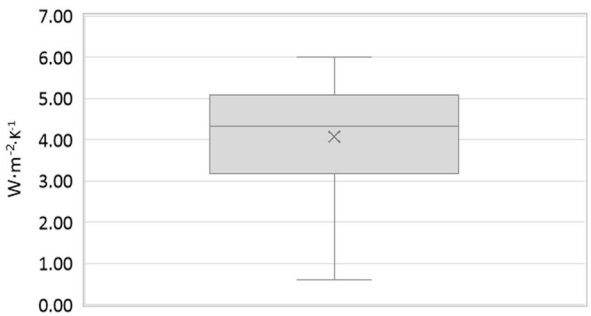


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



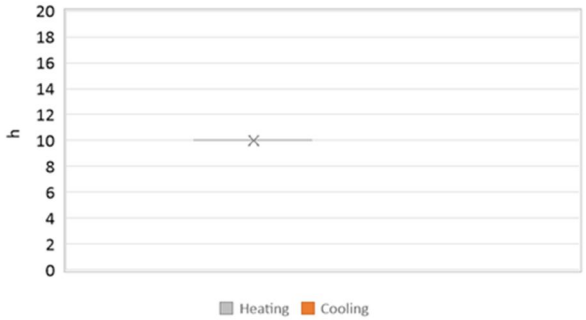
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

AIR EXCHANGE RATE

OCCUPANCY DENSITY

INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME

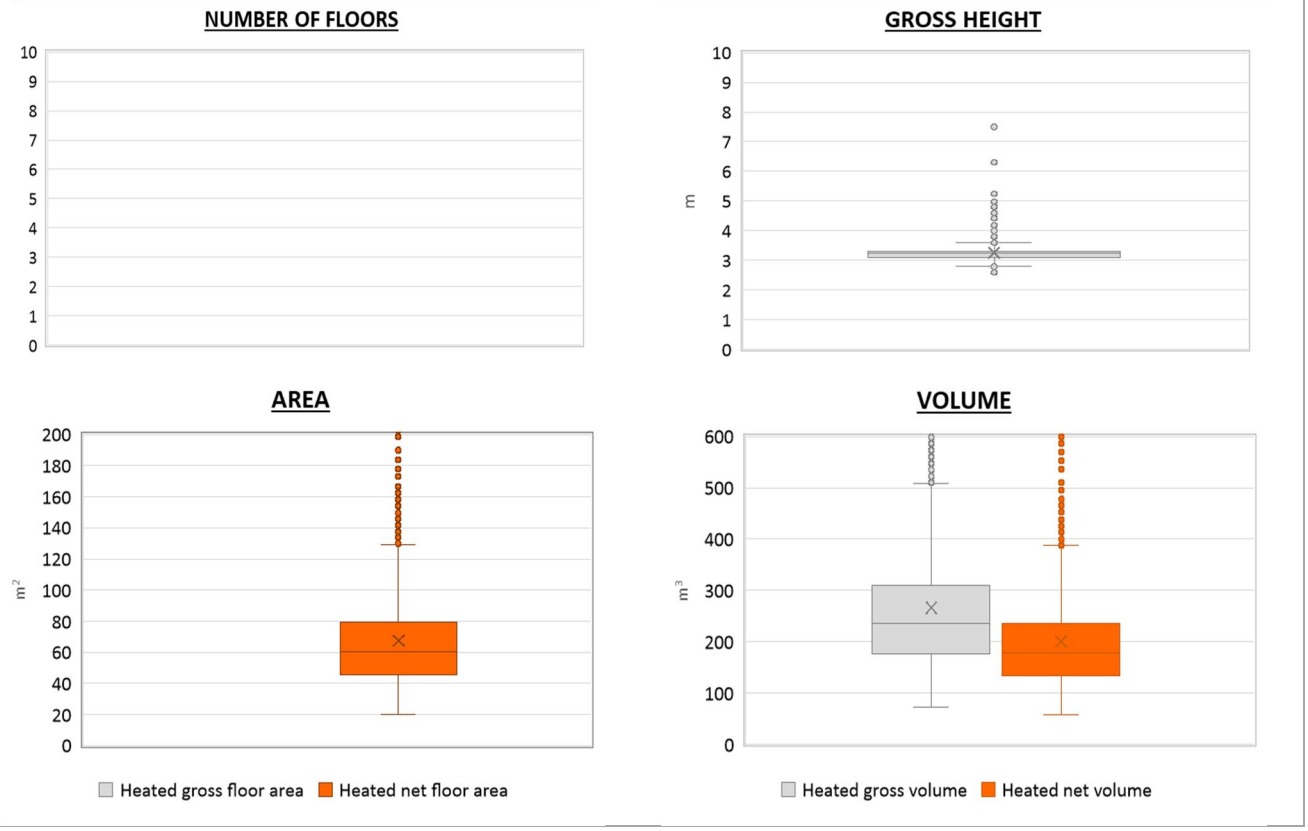


Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1951-1960_C_LIG
Period of construction:	1951-1960			
Climatic zone:	C	**Number of records:**	3784	

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	3.3	0.3	3.1	3.3	3.3
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	67.5	46.7	45.5	60.6	79.3
	Heated gross volume	$V_{H;g}$	m³	266.0	195.2	176.2	235.9	309.8
	Heated net volume	$V_{H;n}$	m³	200.2	152.8	132.9	177.3	234.8
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	6.8	23.0	24.0	24.0
	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	18.1	9.8	7.5	24.0	24.0
	* These values refer to the apartment scale							

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

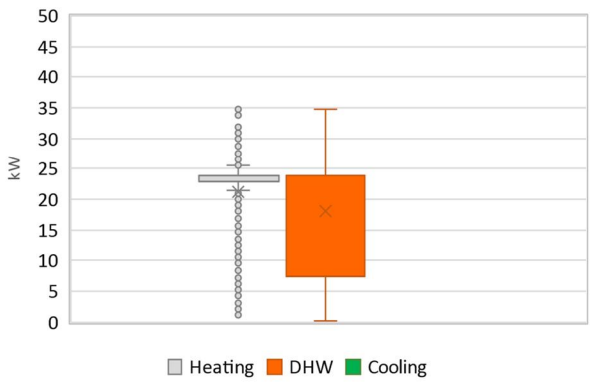


Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1951-1960_C_LIG
Period of construction:	1951-1960			
Climatic zone:	C	**Number of records:**	3784	

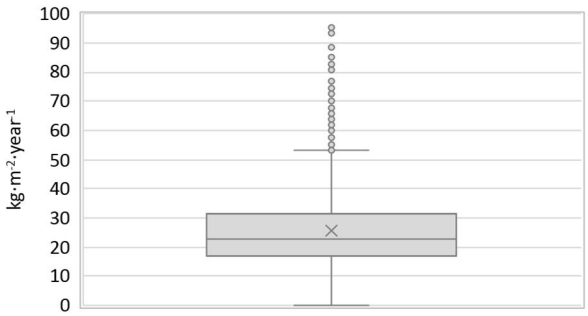
Additional data: other numerical variables that are not included in the archetype

DHW SUPPLY TEMPERATURE

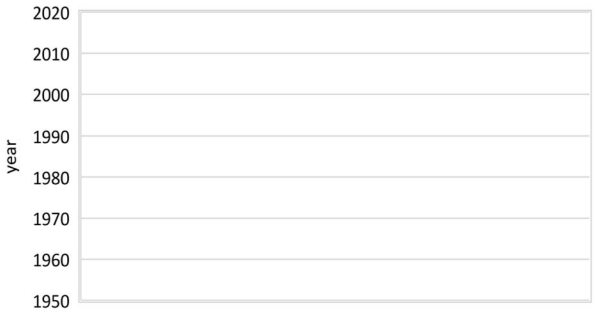
SYSTEM POWER



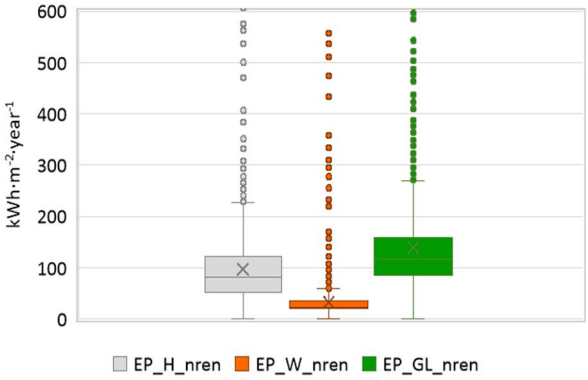
CO_2 EMISSION



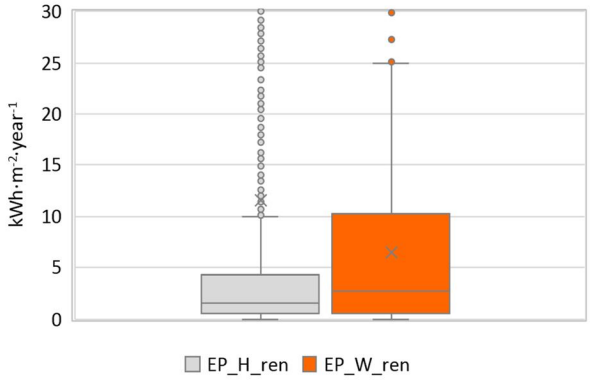
HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE



NOTE: Sample size of the analysed data.

Compactness ratio: 3784; Window to useful floor area ratio: 767; U-value of the roof: 631; U-value of the wall: 3265; U-value of the floor: 190; U-value of the windows: 3784; Inter-storey height: 3784; Heated net floor area: 3784; Heated gross volume: 3784; Heated net volume: 1602; Total heating power: 2657; CO2 Emission: 3744; EP_H_nren: 3755; EP_W_nren: 3642; EP_GL_nren: 3770; EP_H_ren: 2351; EP_W_ren: 1962