Region:	Liguria			**Archetype code:** RES_APPBLOCK_ 1961-1970_E_LIG
Building category:	Residential buildings – Apartments in multi-family block			
Period of construction:	1961-1970			
Climatic zone:	E	**Number of records:**	1064	

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}	0.58	0.23	0.37	0.62	0.73
	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	0.11
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fl;up}$	$W/(m^2 \cdot K)$	1.30	0.69	0.67	1.55	1.76
	External walls type	-						
	U-value of the wall	U_{wl}	$W/(m^2 \cdot K)$	1.14	0.40	1.01	1.13	1.29
	Slab on ground floor type	-						
	U-value of the floor	$U_{fl;lw}$	$W/(m^2 \cdot K)$	1.53	0.56	1.33	1.57	1.70
	Windows type	-						
	U-value of the windows	U_W	$W/(m^2 \cdot K)$	4.12	1.20	3.21	4.31	5.05
	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: 97%; Autonomous: 3%						
	Heating generator	Unknown: 45%; Traditional boiler: 33%; Condensing boiler: 18%; Fireplace: 3%; Heat exchanger of district heating/cooling: 1%						
	Daily operating time of the heating system *	t_H	h	14	0	14	14	14
	Energy carrier	Unknown: 45%; Natural gas: 31%; Electricity and natural gas: 14%; Electricity and solid biomass: 3%; Gas Oil: 2%; LPG: 2%; Electricity and gas oil: 1%; Solid biomass: 1%						
	Heating emission sub-system	Radiators: 53%; Unknown: 45%; Air Ducts: 1%; Radiant panels: 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: 61%; Electric boiler: 18%; Condensing boiler: 11%; Natural gas boiler: 5%; Electric heat pump: 3%; Solar thermal: 1%; Other: 1%						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

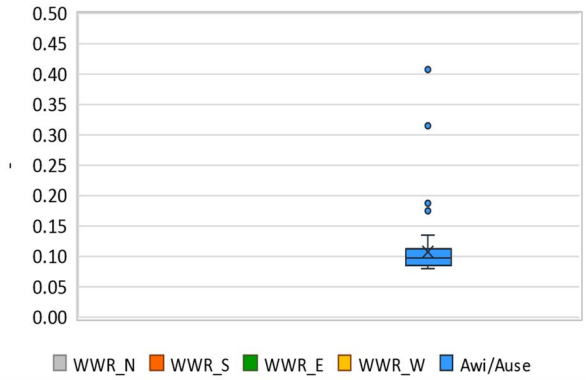
The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1961-1970_E_LIG
Period of construction:	1961-1970			
Climatic zone:	E	**Number of records:**	1064	

Numerical variables – GEOMETRY

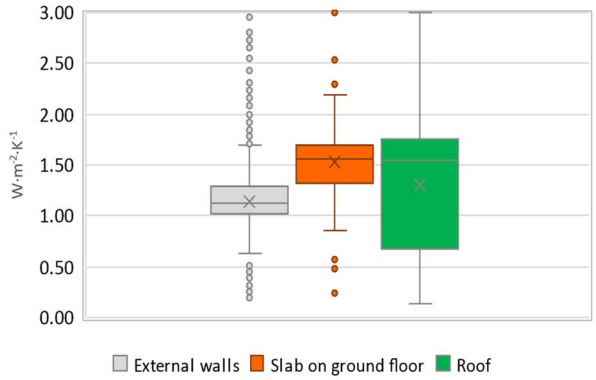
COMPACTNESS RATIO

WINDOWS TO WALL RATIO

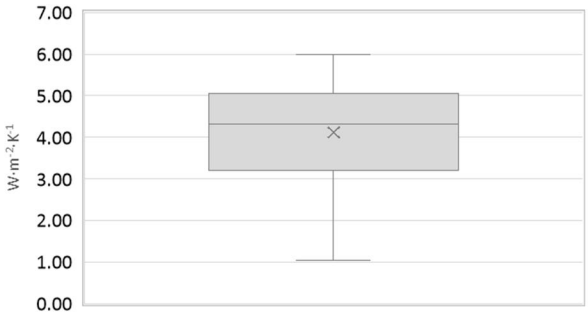


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



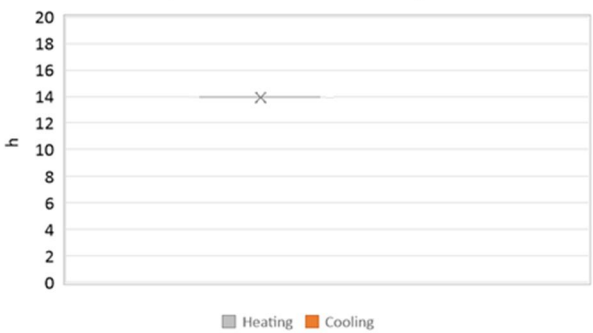
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

AIR EXCHANGE RATE

OCCUPANCY DENSITY

INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME



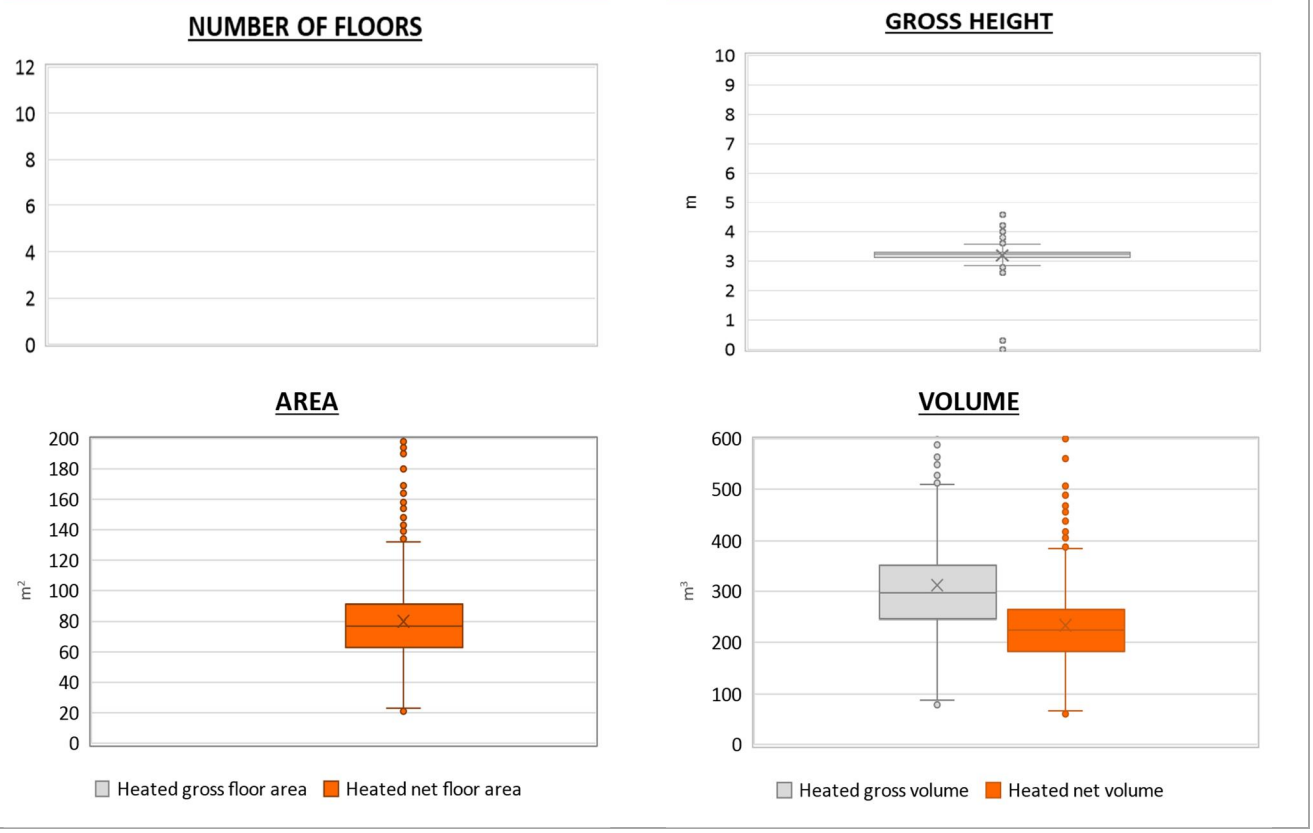
The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1961-1970_E_LIG
Period of construction:	1961-1970			
Climatic zone:	E	**Number of records:**	1064	

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	0.3	3.1	3.3	3.3
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	80.3	34	63.5	77.2	90.8
	Heated gross volume	$V_{H;g}$	m³	317.2	157.8	246.1	296.9	353.6
	Heated net volume	$V_{H;n}$	m³	237.8	122.8	185.1	226.4	265.3
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	22.3	6.5	22.0	24.0	25.0
	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	16.2	11.0	1.5	23.1	24.0
	* These values refer to the apartment scale							

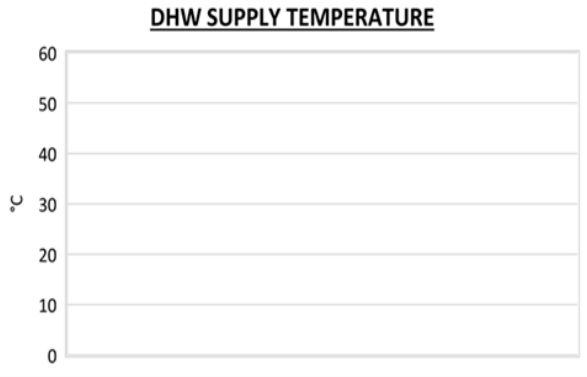
Additional data: GEOMETRY (the plots refer to the apartment scale)

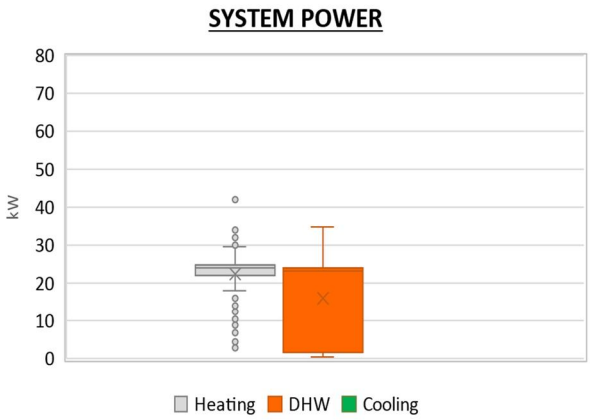


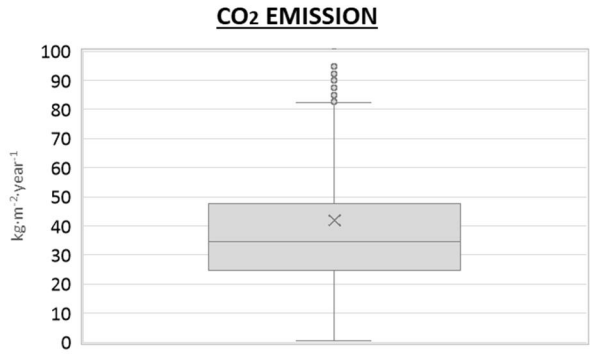
The data can be used for analysis, modeling, and research purposes, as long as it remains unaltered in its original form. Users are free to publish results based on the data, provided they credit the original source.

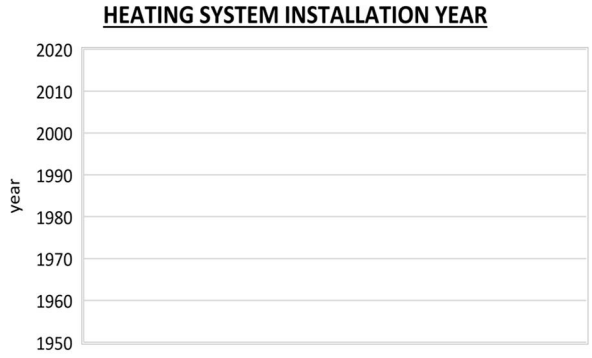
Region:	Liguria			**Archetype code:**
Building category:	Residential buildings – Apartments in multi-family block			RES_APPBLOCK_ 1961-1970_E_LIG
Period of construction:	1961-1970			
Climatic zone:	E	**Number of records:**	1064	

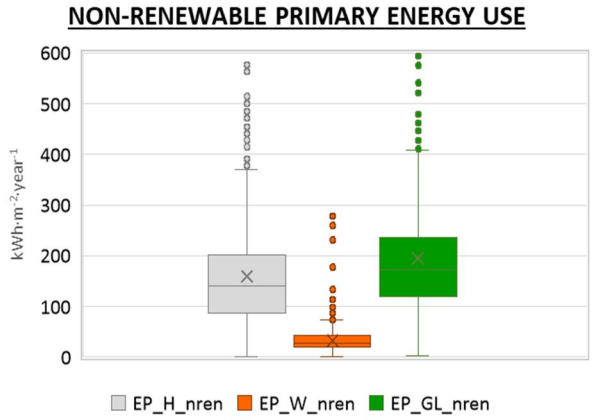
Additional data: other numerical variables that are not included in the archetype

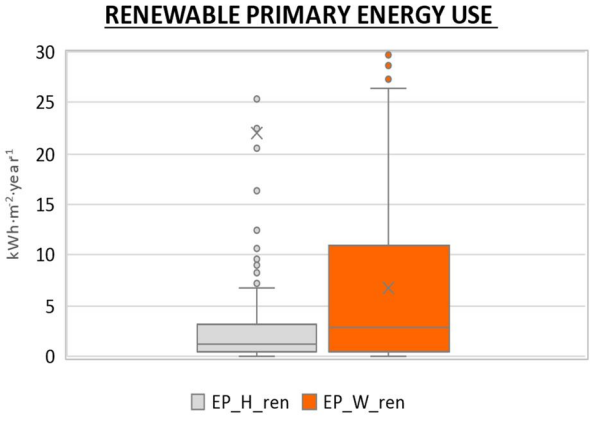












NOTE: Sample size of the analysed data.

Compactness ratio: 1057; Window to useful floor area ratio: 93; U-value of the roof: 108; U-value of the wall: 911; U-value of the floor: 67; U-value of the windows: 1064; Inter-storey height: 1060; Heated net floor area: 1060; Heated gross volume: 1053; Heated net volume: 1054; Total heating power: 341; DHW system power: 705; CO2 Emission: 1024; EP_H_nren: 1056; EP_W_nren: 1020; EP_GL_nren: 1053; EP_H_ren: 787; EP_W_ren: 709

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.