Region:	Liguria		Archetype code:
Building category:	Residential buildings – Single family houses		RES_SINGLE_ 1961-1970_E_LIG
Period of construction:	1961-1970		
Climatic zone:	E	Number of records: 487	

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	$A_{footprint}$	m²	-	-	-	-	-
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	-	-	-	-	-
	Heated gross volume	$V_{H;g}$	m³	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m³	-	-	-	-	-
	Compactness ratio	$A_{env}/V_{H;g}$	m⁻¹	0.70	0.29	0.44	0.72	0.92
	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}	-	0.16	0.35	0.09	0.10	0.12
ENVELOPE	Roof type				-			
	U-value of the roof	$U_{fl;up}$	W/(m²·K)	1.45	0.65	1.02	1.53	1.84
	External walls type				-			
	U-value of the wall	U_{wl}	W/(m²·K)	1.26	0.49	1.05	1.21	1.45
	Slab on ground floor type				-			
	U-value of the floor	$U_{fl;lw}$	W/(m²·K)	1.50	0.53	1.25	1.50	1.69
	Windows type				-			
	U-value of the windows	U_W	W/(m²·K)	4.11	1.13	3.10	4.42	4.89
	Shading system type				-			
GAINS and VENTILATION	Occupancy density *	O_C	person/m²	UNI EN 16798-1 - Table A.19				
	Lighting power density *	W_L	W/m²	UNI EN 16798-1 - A.8.3				
	Equipment power density *	W_A	W/m²	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: 95%; Autonomous: 5%				
	Heating generator			Unknown: 40%; Traditional boiler: 38%; Condensing boiler: 12%; Fireplace: 8%; Heat exchanger of district heating/cooling: 2%				
	Daily operating time of the heating system *	t_H	h	14	0	14	14	14
	Energy carrier			Unknown: 40%; Natural gas: 33%; Electricity and natural gas: 10%; Electricity and solid biomass: 5%; Solid biomass: 4%; Gas Oil: 3%; LPG: 3%; District heating: 1%; Electricity: 1%				
	Heating emission sub-system			Radiators: 55%; Unknown: 39%; Air Ducts: 3%; Radiant panels: 1%; Air Heater: 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: 66%; Electric boiler: 14%; Condensing boiler: 8%; Natural gas boiler: 7%; Electric heat pump: 4%; Other: 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 – Single family houses		RES_SINGLE_
Period of construction:	1961-1970		1961-1970_E_LIG
Climatic zone:	E	Number of records:	487

Numerical variables – GEOMETRY

COMPACTNESS RATIO

WINDOWS TO WALL RATIO

☐ WWR_N ☐ WWR_S ☐ WWR_E ☐ WWR_W ☐ Awi/Ause
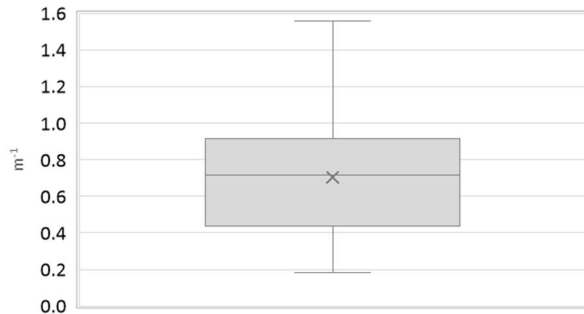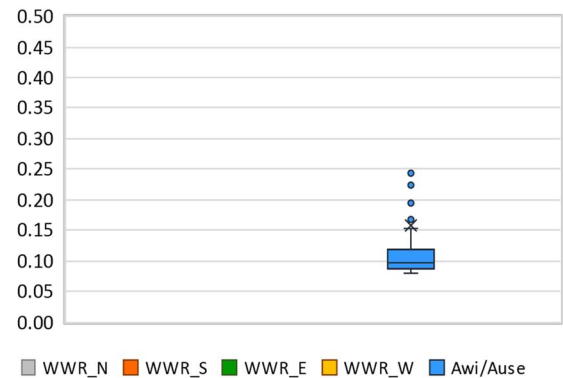
Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE

☐ External walls ☐ Slab on ground floor ☐ Roof
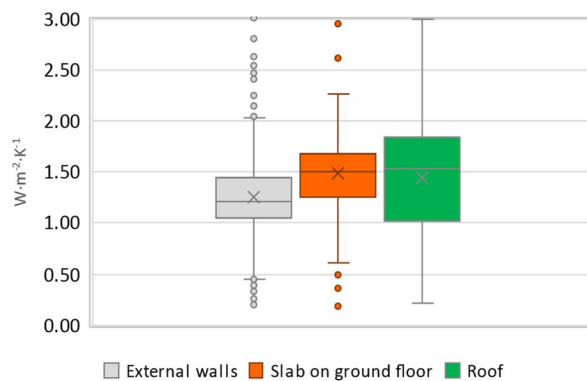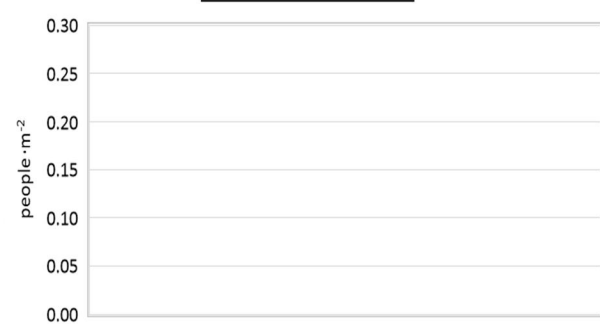
WINDOWS U-VALUE
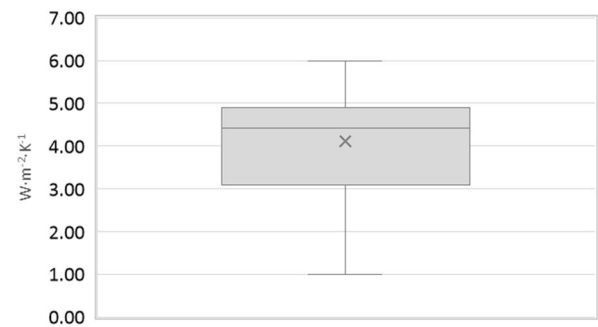
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

AIR EXCHANGE RATE

OCCUPANCY DENSITY

INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME

☐ Heating ☐ Cooling

Region:	Liguria	Archetype code:
Building category:	Residential buildings – Single family houses	RES_SINGLE_
Period of construction:	1961-1970	1961-1970_E_LIG
Climatic zone:	E	Number of records: 487

|	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	3.1	3.2	3.3
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	88.8	45.2	63.6	80.0	100.0
	Heated gross volume	$V_{H;g}$	m³	353.3	205.2	241.0	306.3	396.1
	Heated net volume	$V_{H;n}$	m³	258.2	134.1	181.4	232.0	286.0
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	23.0	6.8	23.7	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	18.4	11.4	1.5	24.0	24.2
	* These values refer to the apartment scale							

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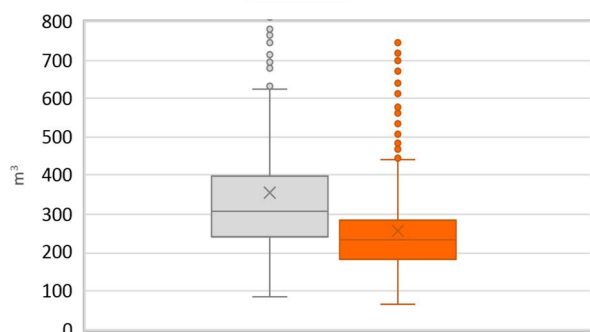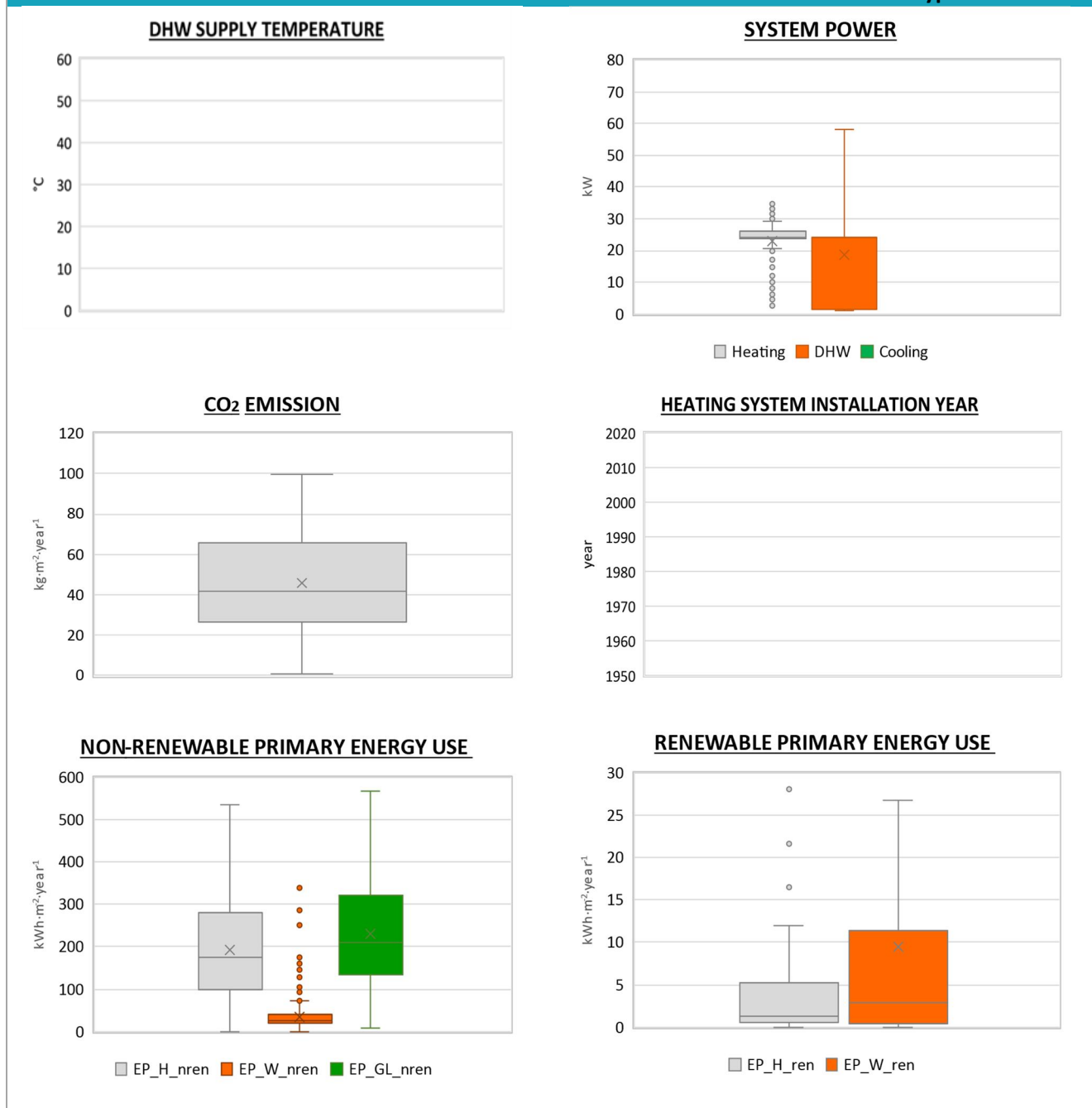
NUMBER OF FLOORS

GROSS HEIGHT
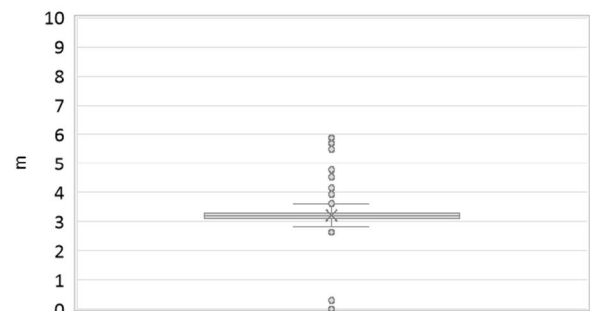
AREA
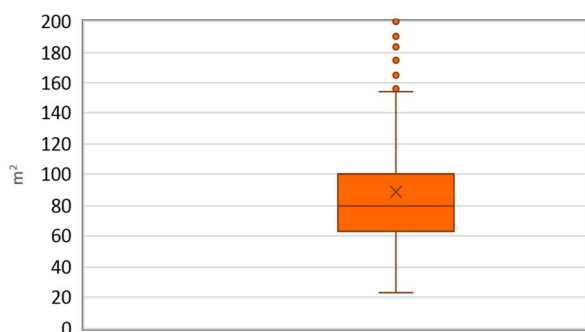
VOLUME

☐ Heated gross floor area ■ Heated net floor area

☐ Heated gross volume ■ Heated net volume

Residential buildings – Single family houses – 1961-1970 – Zone E – Italy

Region:	Liguria		Archetype code:
Building category:	Residential buildings – Single family houses		RES_SINGLE_ 1961-1970_E_LIG
Period of construction:	1961-1970		
Climatic zone:	E	Number of records:	487

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

DHW SUPPLY TEMPERATURE

SYSTEM POWER

☐ Heating ☐ DHW ☐ Cooling

CO₂ EMISSION

HEATING SYSTEM INSTALLATION YEAR

NON-RENEWABLE PRIMARY ENERGY USE

RENEWABLE PRIMARY ENERGY USE

☐ EP_H_nren ☐ EP_W_nren ☐ EP_GL_nren

☐ EP_H_ren ☐ EP_W_ren

NOTE: Sample size of the analysed data.

Compactness ratio: 486; Window to useful floor area ratio: 59; U-value of the roof: 95; U-value of the wall: 431; U-value of the floor: 60; U-value of the windows: 487; Inter-storey height: 482; Heated net floor area: 482; Heated gross volume: 480; Heated net volume: 480; Total heating power: 190; DHW system power: 333; CO2 Emission: 458; EP_H_nren: 484; EP_W_nren: 457; EP_GL_nren: 483; EP_H_ren: 330; EP_W_ren: 296