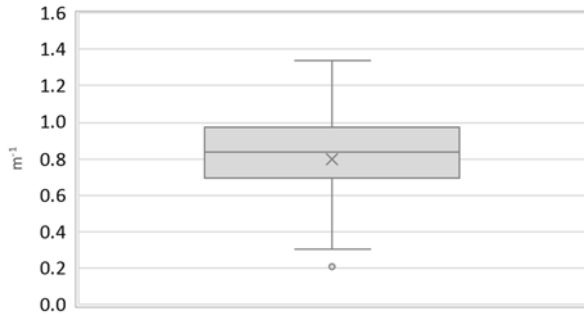


Region:		Liguria					Archetype code: RES_SINGLE_ 2001-_F_LIG	
Building category:		Residential buildings – Single family houses						
Period of construction:		2001-						
Climatic zone:		F	Number of records:		27			
Description: <u>External walls</u> : no data available <u>Roof slabs</u> : no data available							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	-	-	-	-	-
	Heated gross volume	$V_{H;g}$	m ³	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m ³	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H;g}$	m ⁻¹	0.80	0.28	0.70	0.84	0.97
	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	$U_{fi;up}$	W/(m ² ·K)	0.84	0.78	0.25	0.46	1.52
	External walls type	-						
	U-value of the wall	U_{wi}	W/(m ² ·K)	1.04	0.80	0.35	0.98	1.53
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi;lw}$	W/(m ² ·K)	1.25	0.29	1.07	1.32	1.43
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	2.69	1.06	1.86	2.59	3.22
	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: 96%; Mechanical: 4%						
	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
	THERMAL SYSTEMS	Heating system type	Unknown: 81%; Autonomous: 19%					
Heating generator		Traditional boiler: 41%; Unknown: 33%; Fireplace: 19%; Condensing boiler: 7%						
Daily operating time of the heating system *		No limitations						
Energy carrier		Natural gas: 37%; Unknown: 33%; Solid biomass: 15%; Electricity and solid biomass: 11%; LPG: 4%						
Heating emission sub-system		Unknown: 33%; Radiators: 30%; Air Ducts: 15%; Radiant panels: 11%; Fan-coil: 7%; Convectors: 4%						
Cooling system type		Unknown: 93%; Heat pump air-air: 7%						
Daily operating time of the cooling system *		t_c	h	-	-	-	-	-
Cooling emission sub-system		-						
DHW system type		-						
DHW generator		Unknown: 55%; Electric boiler: 26%; Condensing boiler: 15%; Electric heat pump: 4%						
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

Region:	Liguria	Archetype code: RES_SINGLE_ 2001-_F_LIG
Building category:	Residential buildings – Single family houses	
Period of construction:	2001-	
Climatic zone:	F	
Number of records:		27

Numerical variables – GEOMETRY

COMPACTNESS RATIO



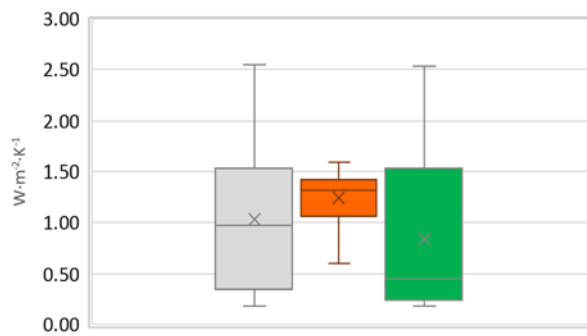
WINDOWS TO WALL RATIO



■ WWR_N ■ WWR_S ■ WWR_E ■ WWR_W ■ Awi/Ause

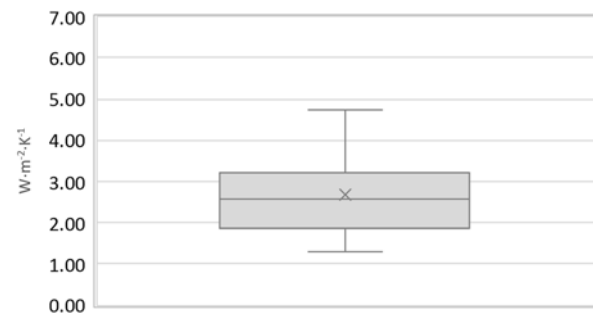
Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



■ External walls ■ Slab on ground floor ■ Roof

WINDOWS U-VALUE

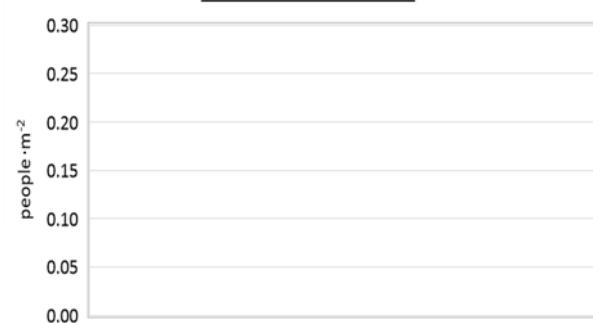


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)

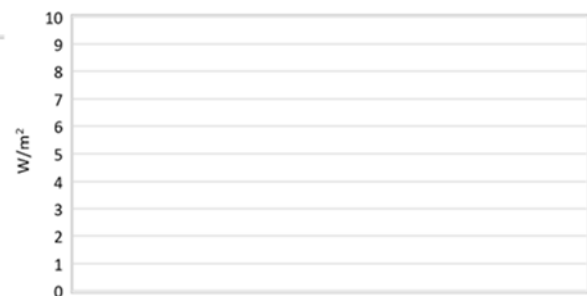
AIR EXCHANGE RATE



OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME



■ Heating ■ Cooling



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.

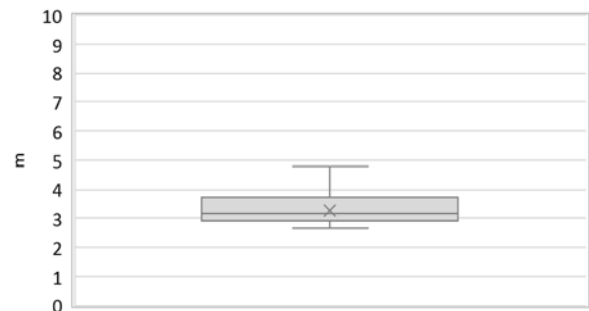
Region:	Liguria		Archetype code: RES_SINGLE_ 2001-_F_LIG					
Building category:	Residential buildings – Single family houses							
Period of construction:	2001-							
Climatic zone:	F	Number of records: 27						
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.3	0.5	2.9	3.1	3.7
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	86.2	52.1	50.9	75.7	107.0
	Heated gross volume	$V_{H,g}$	m ³	373.3	247.5	207.9	324.5	491.9
	Heated net volume	$V_{H,n}$	m ³	258.4	165.8	134.9	210.4	350.1
THERMAL SYSTEMS	Heating efficiency or <i>COP</i>	$\eta_{H,gen}$ Or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	$P_{H,gen}$	kW	20.0	7.3	11.0	24.0	24.0
	Cooling efficiency or <i>EER</i>	$\eta_{C,gen}$ 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	16.6	12.1	1.5	24.0	25.8
	* These values refer to the apartment scale							

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

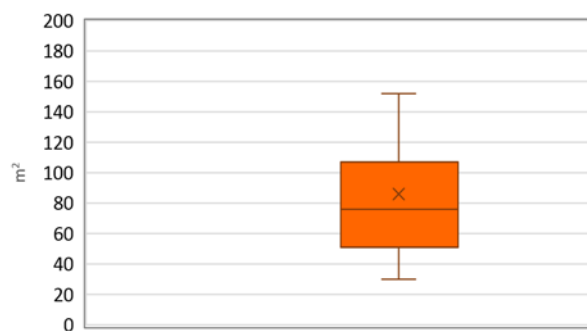
NUMBER OF FLOORS



GROSS HEIGHT

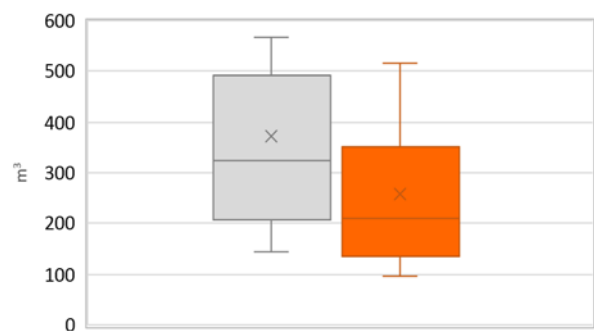


AREA



Heated gross floor area Heated net floor area

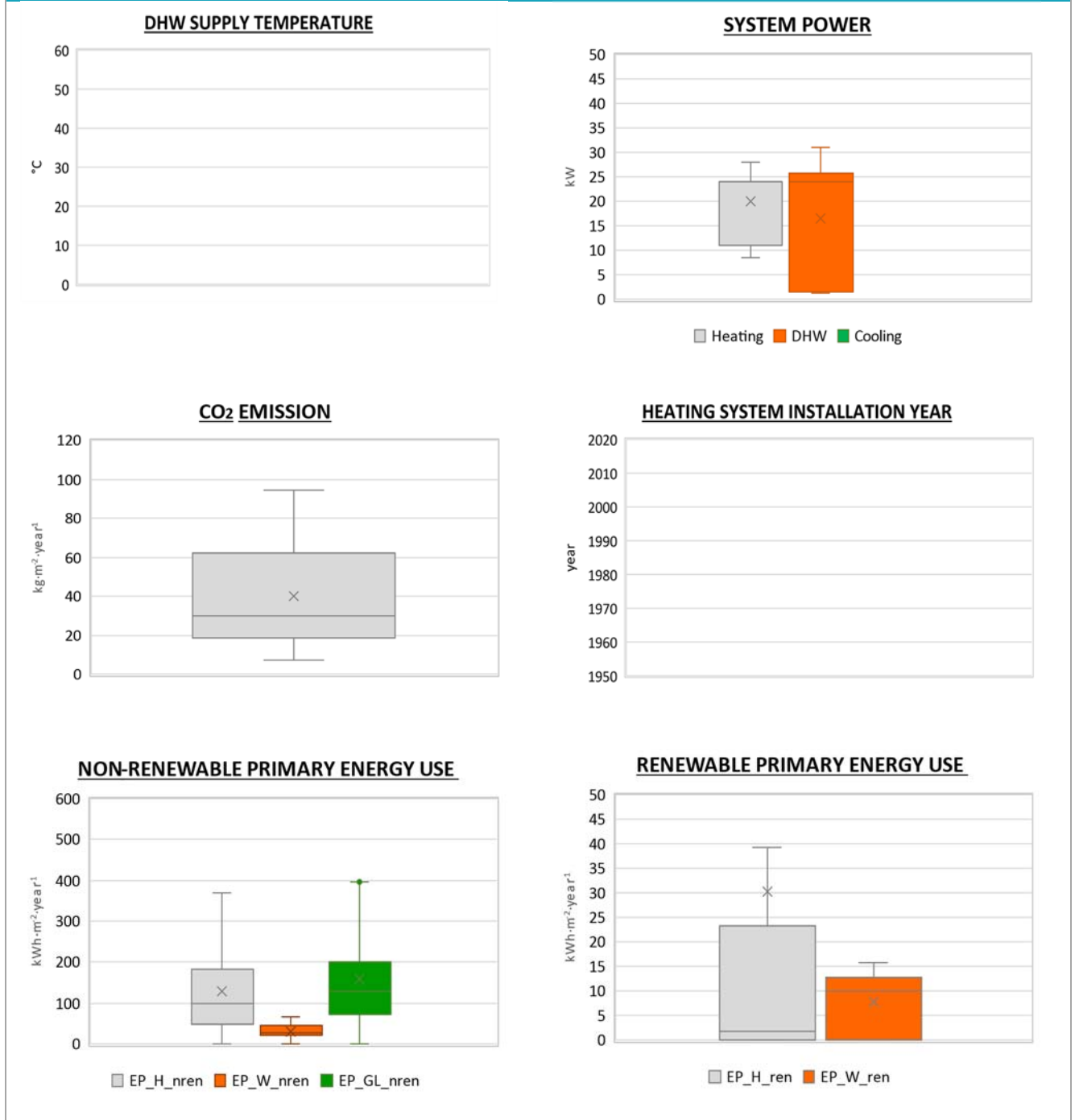
VOLUME



Heated gross volume Heated net volume

Region:	Liguria	Archetype code: RES_SINGLE_ 2001-_F_LIG
Building category:	Residential buildings – Single family houses	
Period of construction:	2001-	
Climatic zone:	F	
Number of records:		27

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



NOTE: Sample size of the analysed data.

Compactness ratio: 27; U-value of the roof: 20; U-value of the wall: 27; U-value of the floor: 10; U-value of the windows: 27; Inter-storey height: 27; Heated net floor area: 27; Heated gross volume: 27; Heated net volume: 27; Total heating power: 13; DHW system power: 24; CO₂ Emission: 26; EP_H_nren: 25; EP_W_nren: 25; EP_GL_nren: 25; EP_H_ren: 17; EP_W_ren: 15



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.