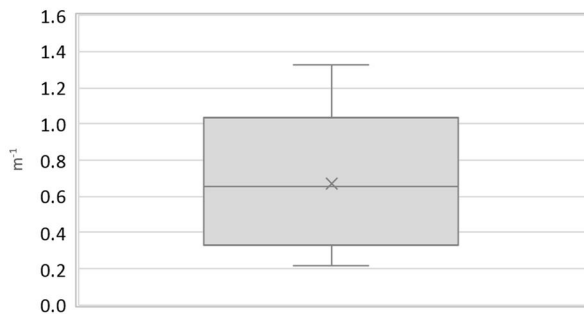


Region:	Liguria					Archetype code: RES_APPBLOCK_ 1991-2000_F_LIG		
Building category:	Residential buildings – Apartments in multi-family block							
Period of construction:	1991-2000							
Climatic zone:	F	Number of records:		11				
Description: External walls: no data available Roof slabs: no data 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	$A_{\text{footprint}}$	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	0.67	0.38	0.33	0.65	1.04
	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	$U_{\text{fl;up}}$	W/(m ² ·K)	-	-	-	-	-
	External walls type	-						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.11	0.35	0.87	1.27	1.40
	Slab on ground floor type	-						
	U-value of the floor	$U_{\text{fl;lw}}$	W/(m ² ·K)	-	-	-	-	-
	Windows type	-						
	U-value of the windows	U_W	W/(m ² ·K)	3.46	1.00	2.67	3.31	3.91
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	-						
	Heating generator	Unknown: 55%; Traditional boiler: 45%						
	Daily operating time of the heating system *	No limitations						
	Energy carrier	Unknown: 55%; LPG: 18%; Natural gas: 9%; Electricity and natural gas: 9%; Electricity and gas oil: 9%						
	Heating emission sub-system	Unknown: 55%; Radiators: 45%						
	Cooling system type	-						
	Daily operating time of the cooling system *	t_c	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	-						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

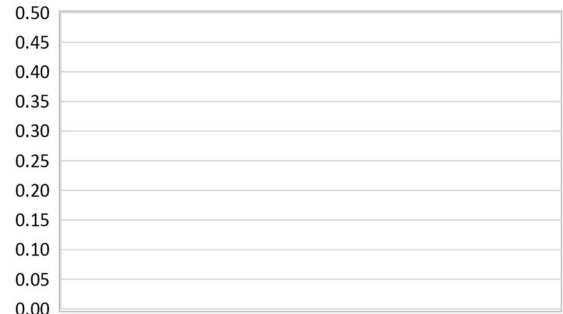
Region:	Liguria	Archetype code: RES_APPBLOCK_ 1991-2000_F_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1991-2000	
Climatic zone:	F	
Number of records:		11

Numerical variables – GEOMETRY

COMPACTNESS RATIO



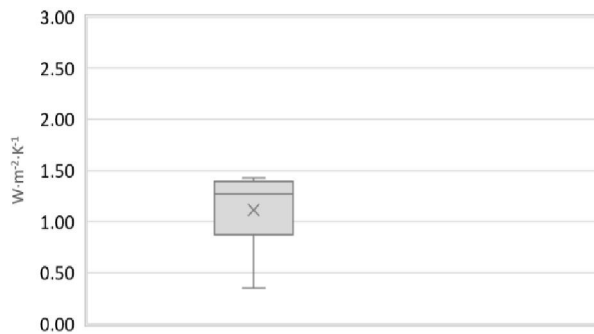
WINDOWS TO WALL RATIO



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

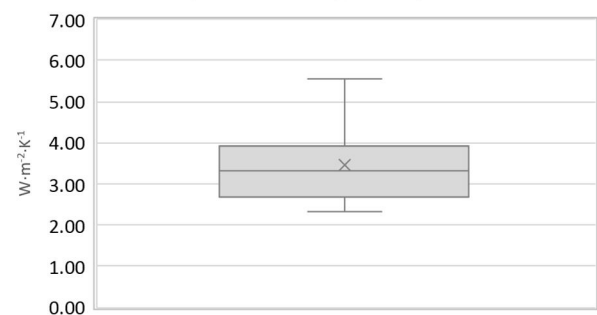
Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



■ External walls ■ Slab on ground floor ■ Roof

WINDOWS U-VALUE



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

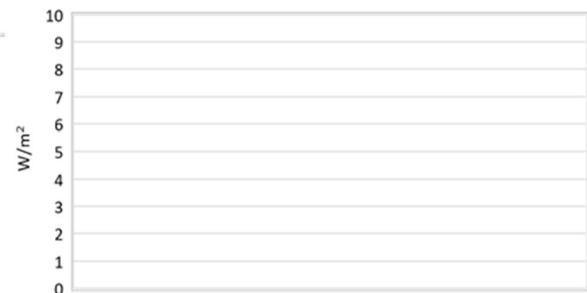
AIR EXCHANGE RATE



OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME



■ Heating ■ Cooling

Region:	Liguria	Archetype code: RES_APPBLOCK_ 1991-2000_F_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1991-2000	
Climatic zone:	F	
Number of records:		11

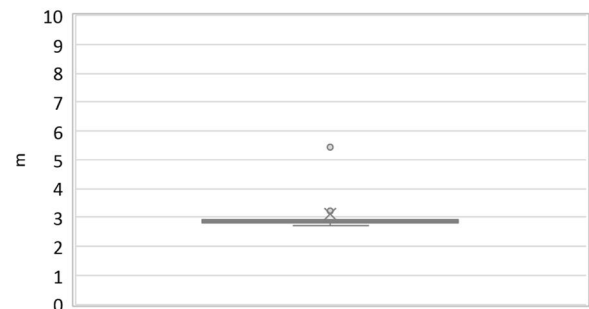
ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	3.1	0.8	2.8	2.8	3.2
	Heated gross floor area	$A_{H,g}$	m ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	82.4	47.9	53.0	72.6	94.0
	Heated gross volume	$V_{H,g}$	m ³	305.0	183.5	178.8	245.8	462.0
	Heated net volume	$V_{H,n}$	m ³	234.0	141.3	150.5	182.5	347.3
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	-	-	-	-	-
	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	23.6	2.3	23.3	24.0	24.7
* These values refer to the apartment scale								

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

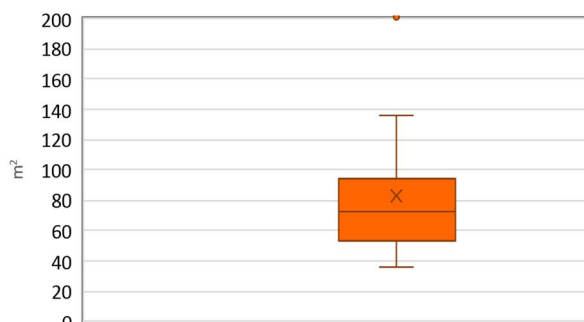
NUMBER OF FLOORS



GROSS HEIGHT

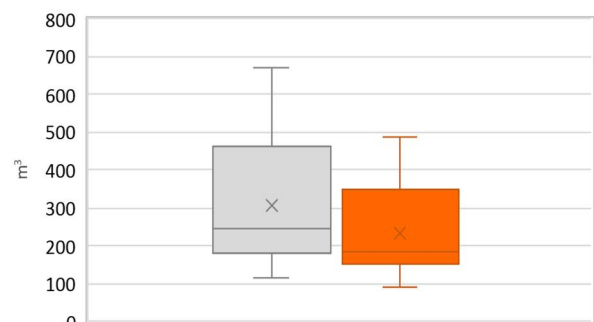


AREA



Heated gross floor area Heated net floor area

VOLUME



Heated gross volume Heated net volume

Region:	Liguria	Archetype code: RES_APPBLOCK_ 1991-2000_F_LIG
Building category:	Residential buildings – Apartments in multi-family block	
Period of construction:	1991-2000	
Climatic zone:	F	
Number of records:		11

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


NOTE: Sample size of the analysed data.

Compactness ratio: 11; U-value of the wall: 11; U-value of the windows: 11; Inter-storey height: 11; Heated net floor area: 11; Heated gross volume: 11; Heated net volume: 11; DHW system power: 10; CO₂ Emission: 10; EP_H_nren: 11; EP_W_nren: 11; EP_GL_nren: 11; EP_H_ren: 6