Region:	Liguria		Archetype code:
Building category:	Residential buildings – Entire multifamily blocks		RES_BLDGS_ 2001-_D_LIG
Period of construction:	2001-		
Climatic zone:	D	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	375.8	1172.0	66.1	100.8	169.9
	Heated gross volume	$V_{H;g}$	m³	1617.1	5219.1	280.1	424.3	704.3
	Heated net volume	$V_{H;n}$	m³	1207.4	3959.9	188.8	283.1	485.1
	Compactness ratio	$A_{env}/V_{H;g}$	m⁻¹	0.78	0.26	0.61	0.81	0.95
	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}	-	0.14	0.11	0.09	0.10	0.14
ENVELOPE	Roof type		-					
	U-value of the roof	$U_{fl;up}$	W/(m²·K)	0.62	0.60	0.24	0.35	0.79
	External walls type		-					
	U-value of the wall	U_{wl}	W/(m²·K)	0.65	0.55	0.27	0.40	0.93
	Slab on ground floor type		-					
	U-value of the floor	$U_{fl;lw}$	W/(m²·K)	0.86	0.55	0.33	0.87	1.25
	Windows type		-					
	U-value of the windows	U_W	W/(m²·K)	2.47	1.17	1.50	2.15	3.13
	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: 90%; Mechanical: 10%					
	Air exchange rate *	n	h⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type		Unknown: 94%; Autonomous: 4%; Centralized: 2%					
	Heating generator		Unknown: 40%; Air-source heat pump: 21%; Condensing boiler: 19%; Traditional boiler: 17%; Fireplace: 2%; Water-source heat pump: 1%					
	Daily operating time of the heating system *	t_H	h	12	0	12	12	12
	Energy carrier		Unknown: 41%; Natural gas: 23%; Electricity: 22%; Electricity and natural gas: 9%; LPG: 3%; Solid biomass: 1%; Electricity and solid biomass: 1%					
	Heating emission sub-system		Unknown: 39%; Radiators: 32%; Radiant panels: 13%; Fan-coil: 6%; Convectors: 6%; Air Ducts: 4%					
	Cooling system type		Unknown: 69%; Heat pump air-air: 21%; Heat pump air-water: 10%					
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system		-					
	DHW system type		-					
	DHW generator		Unknown: 64%; Condensing boiler: 24%; Electric boiler: 7%; Solar thermal: 3%; Electric heat pump: 1%; Natural gas boiler: 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 – Entire multifamily blocks		RES_BLDGS_
Period of construction:	2001-		2001-_D_LIG
Climatic zone:	D	Number of records:	487

Numerical variables – GEOMETRY

COMPACTNESS RATIO

WINDOWS TO WALL RATIO

□ WWR_N ■ WWR_S ■ WWR_E ■ WWR_W ■ Awi/Ause
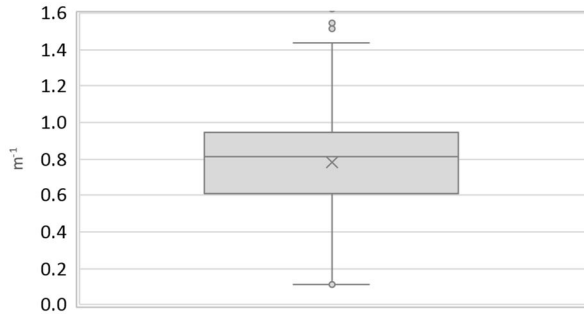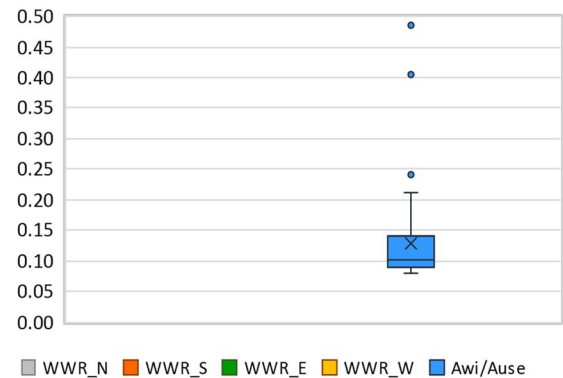
Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE

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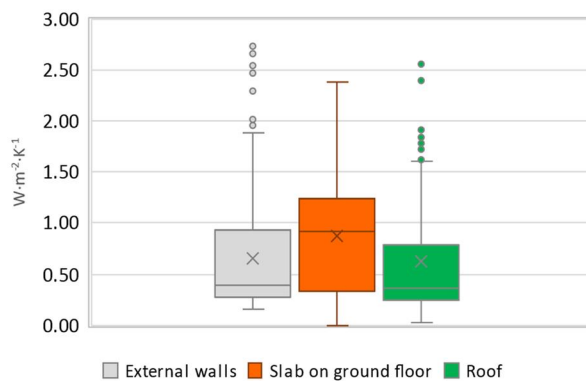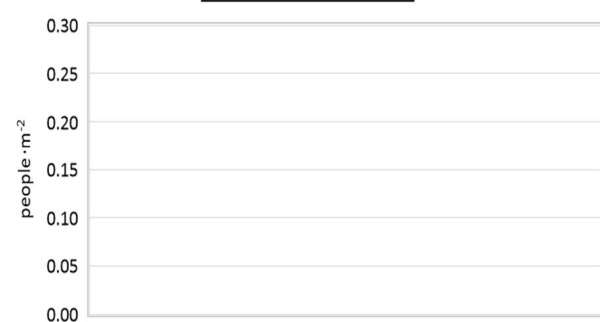
WINDOWS U-VALUE
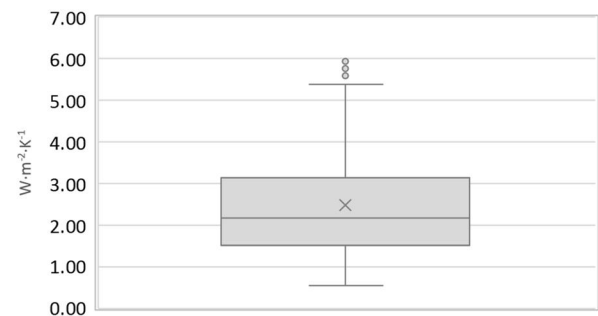
Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE (Standard Values)
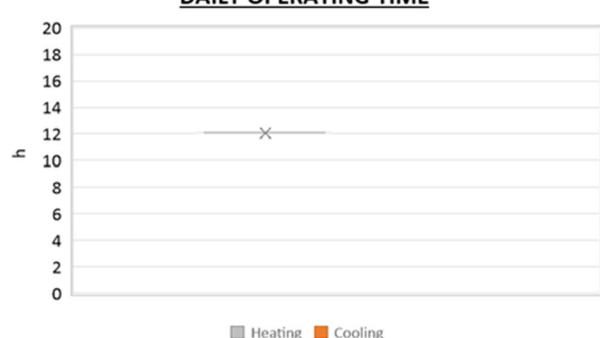
AIR EXCHANGE RATE

OCCUPANCY DENSITY

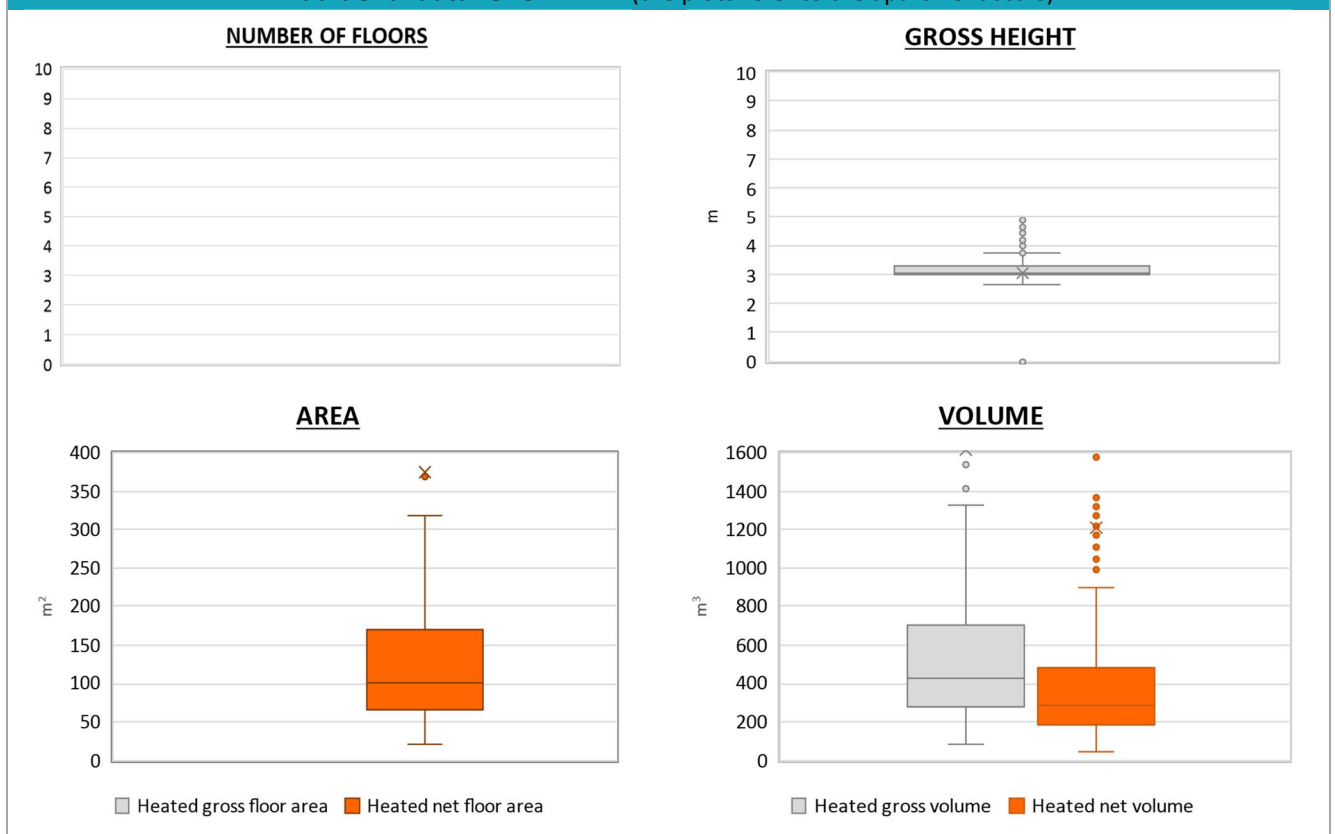### INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME

■ Heating ■ Cooling

Region:	Liguria		Archetype code:
Building category:	Residential buildings – Entire multifamily blocks		RES_BLDGS_ 2001-_D_LIG
Period of construction:	2001-		
Climatic zone:	D	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	3.0	3.1	3.3
	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	-	-	-	-	-
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	46.3	82.4	11.4	24.0	28.0
	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	17.1	11.5	2.4	23.0	25.1
	* 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

Region:	Liguria		Archetype code:
Building category:	Residential buildings – Entire multifamily blocks		RES_BLDGS_ 2001-_D_LIG
Period of construction:	2001-		
Climatic zone:	D	Number of records: 487	

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

DHW SUPPLY TEMPERATURE

SYSTEM POWER

☐ Heating ☐ DHW ☐ Cooling
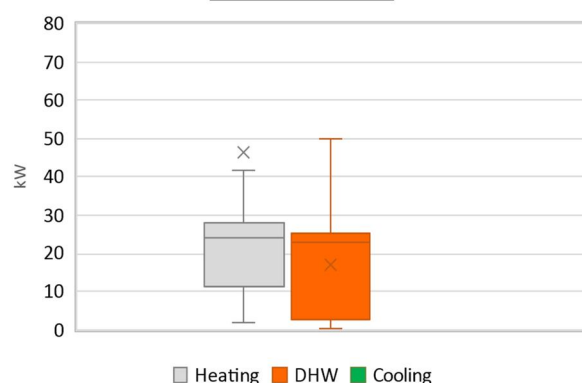
CO₂ EMISSION
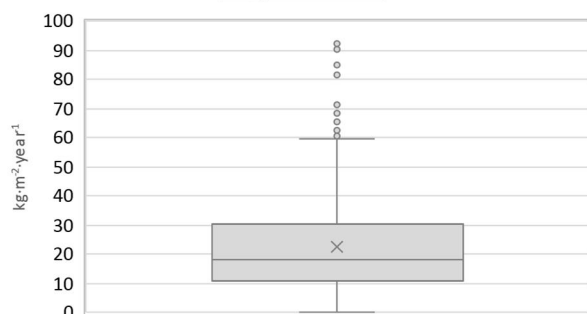
HEATING SYSTEM INSTALLATION YEAR

NON-RENEWABLE PRIMARY ENERGY USE

☐ EP_H_nren ☐ EP_W_nren ☐ EP_GL_nren

RENEWABLE PRIMARY ENERGY USE

☐ EP_H_ren ☐ EP_W_ren
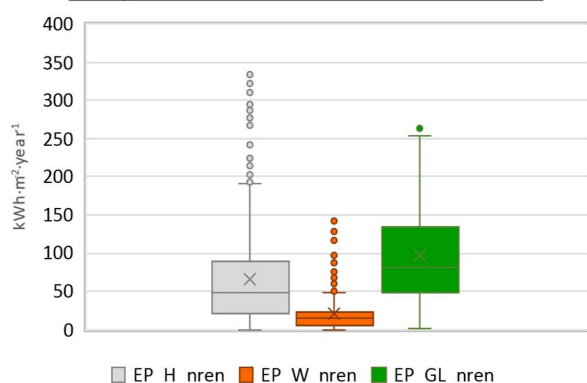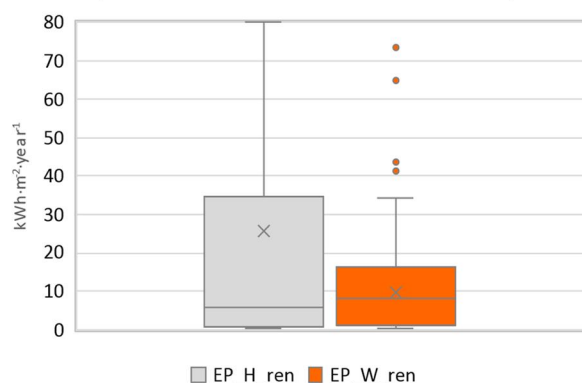
NOTE: Sample size of the analysed data.

Compactness ratio: 461; Window to useful floor area ratio: 78; U-value of the roof: 318; U-value of the wall: 466; U-value of the floor: 95; U-value of the windows: 487; Inter-storey height: 462; Heated net floor area: 462; Heated gross volume: 462; Heated net volume: 462; Total heating power: 215; DHW system power: 320; CO2 Emission: 467; EP_H_nren: 476; EP_W_nren: 456; EP_GL_nren: 448; EP_H_ren: 417; EP_W_ren: 368