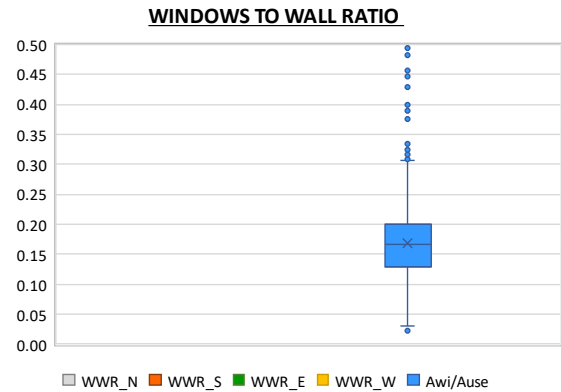
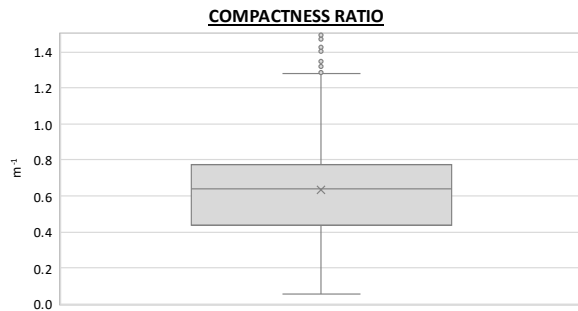


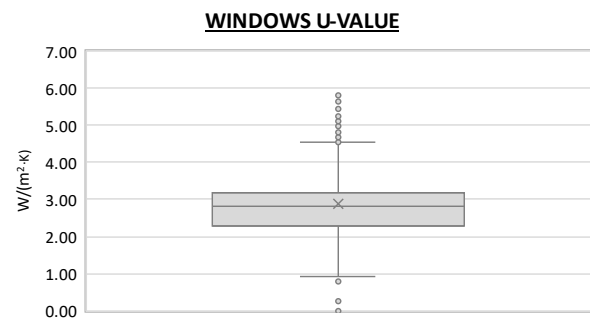
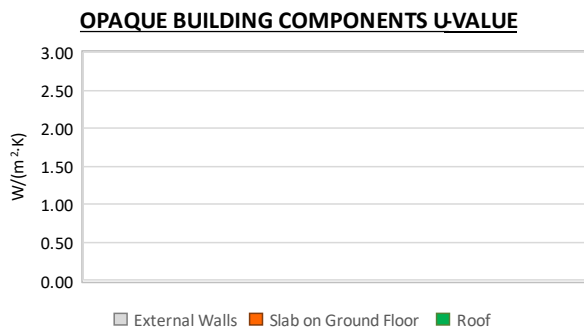
Region:	Piedmont					Archetype code: RES_APPBLOCK_1981-1990_F_PIE		
Building category:	Residential buildings - Apartments (in multifamily blocks)							
Period of construction:	1981-1990							
Climatic zone:	F	Number of records:		2101				
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: hollow brick masonry with thermal insulation (cod. MCV02). Roof slabs: reinforced concrete floor slab (cod. SOL04).							Data sources: EPC databases (100%)	
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	$n_f$	-	-	-	-	-	-
	Gross height	$H_g$	m	-	-	-	-	-
	Footprint area	$A_{\text{footprint}}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	-	-	-	-	-
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m <sup>-1</sup>	0.64	0.35	0.44	0.64	0.77
	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	$A_{wi}/A_{\text{use}}$	-	0.17	0.07	0.13	0.17	0.20
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi,up}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	External walls type	Hollow brick masonry: 78%; Solid Brick masonry: 18%; Unknown: 3%; Prefabricated panels: 1%						
	U-value of the wall	$U_{wi}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi,lw}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	Windows type	-						
	U-value of the windows	$U_W$	W/(m <sup>2</sup> ·K)	2.87	0.98	2.27	2.83	3.18
GAINS and VENTILATION	Shading system type	-						
	Occupancy density *	$O_C$	person/m <sup>2</sup>	UNI EN 16798-1 - Table A.19				
	Lighting power density *	$W_L$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Equipment power density *	$W_A$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
THERMAL SYSTEMS	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	0.00	0.30	0.30	0.30
	Heating system type	Autonomous: 59%; Centralized: 41%						
	Heating generator	-						
	Daily operating time of the heating system *	$t_H$	h	No limitation				
	Energy carrier	Natural Gas: 67%; Gas Oil: 11%; District heating: 8%; LPG: 6%; Solid biomass: 6%; Electricity: 2%						
	Heating emission sub-system	-						
	Cooling system type	-						
	Daily operating time of the cooling system *	$t_C$	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Autonomous, coupled with heating: 44%; Autonomous, detached from heating: 40%; Centralized, coupled with heating: 14%; Centralized, detached from heating: 2%						
	DHW generator	-						
	* These values are derived from UNI EN ISO Standards							

<b>Region:</b>	Piedmont	<b>Archetype code:</b> RES_APPBLOCK_1981- 1990_F_PIE
<b>Building category:</b>	Residential buildings - Apartments (in multifamily blocks)	
<b>Period of construction:</b>	1981-1990	
<b>Climatic zone:</b>	F	
<b>Number of records:</b>		2101

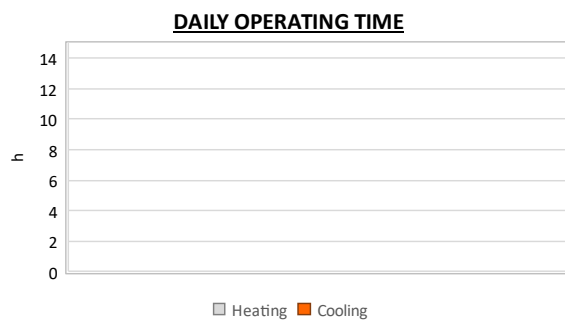
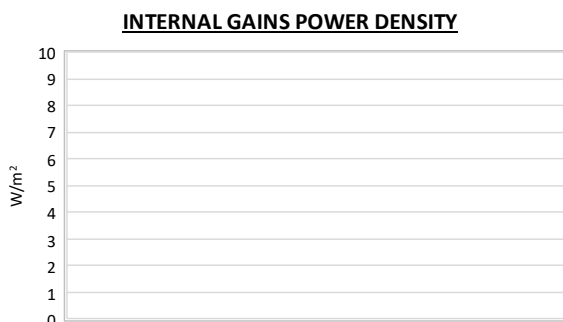
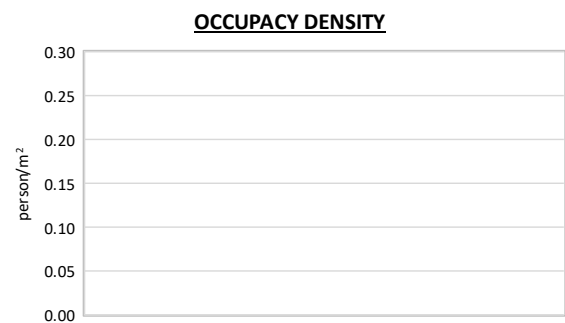
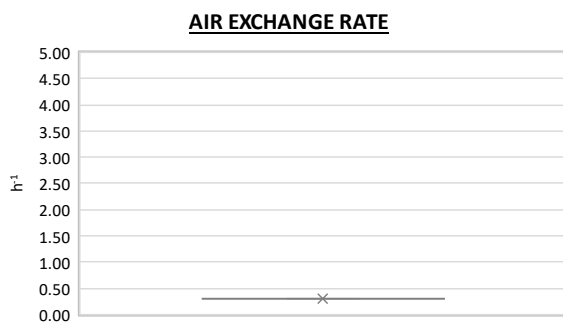
### Numerical variables – GEOMETRY



### Numerical variables – ENVELOPE



### Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

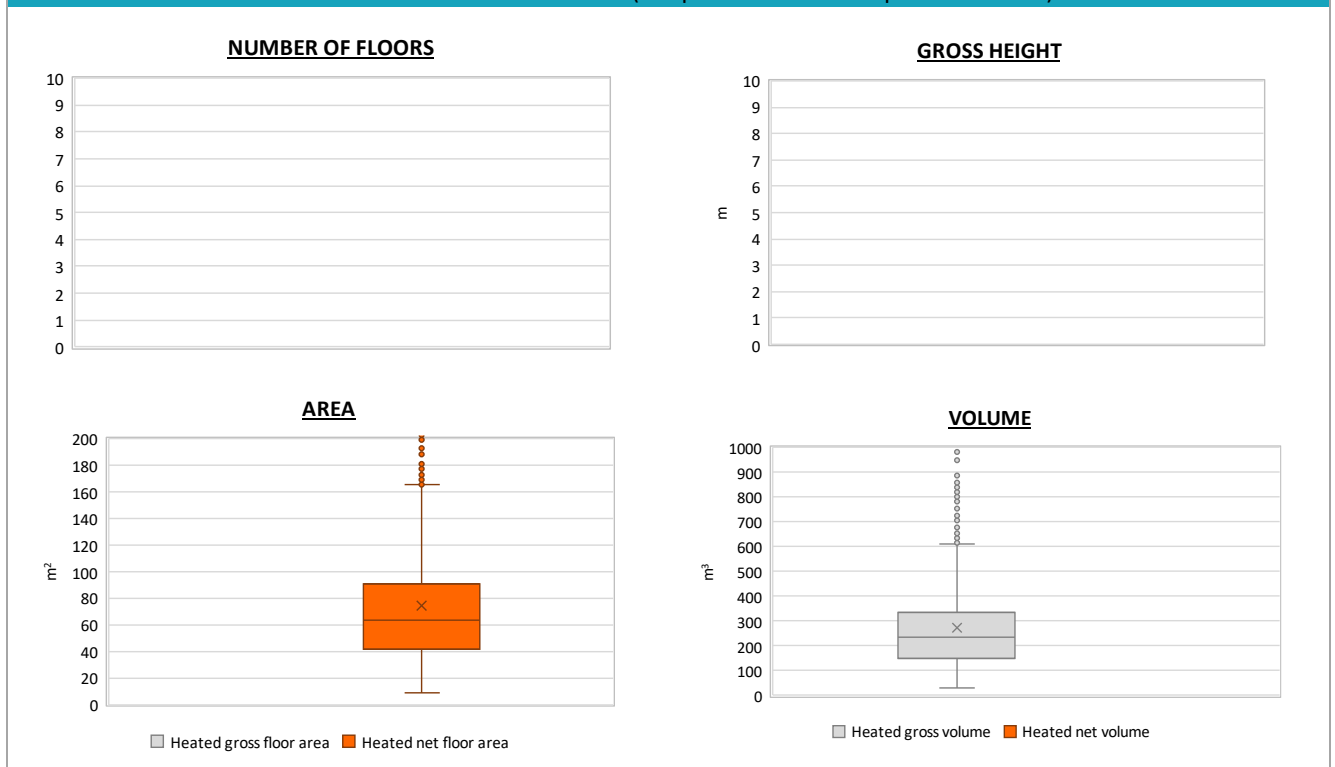


Region:	Piedmont	Archetype code: RES_APPBLOCK_1981- 1990_F_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	1981-1990	
Climatic zone:	F	
Number of records:		2101

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	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	74.4	51.5	41.6	63.7	91.1
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	274.0	193.9	151.8	233.5	336.8
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	-	-	-	-	-
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	22.8	7.9	22.0	24.0	27.3
	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	5.6	3.5	3.5	4.3	6.2
	Temperature of DHW	$\vartheta_w$	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	15.3	12.0	1.2	21.9	24.5

\* These values refer to the apartment scale

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



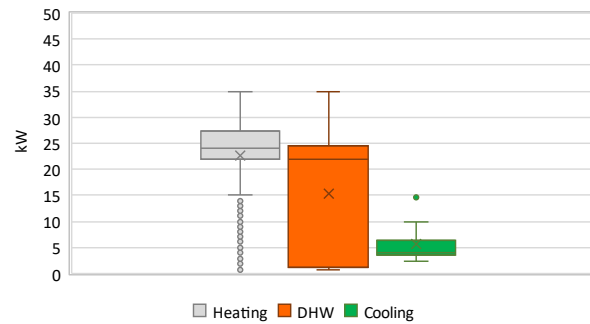
Region:	Piedmont	Archetype code: RES_APPBLOCK_1981- 1990_F_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	1981-1990	
Climatic zone:	F	
Number of records:		2101

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

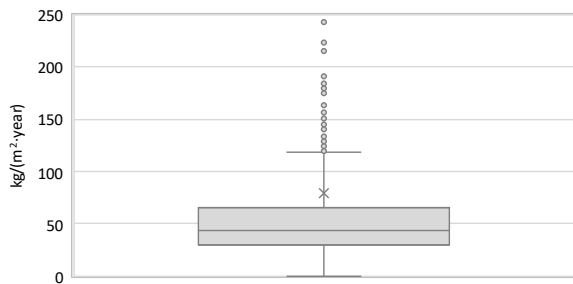
**DHW SUPPLY TEMPERATURE**



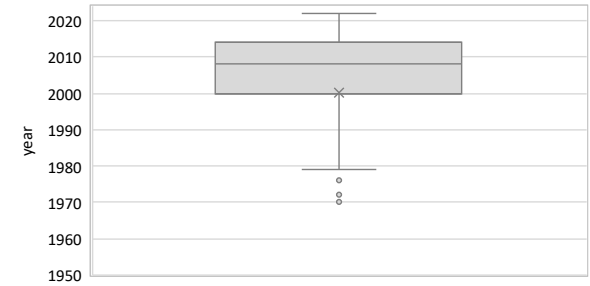
**SYSTEM POWER**



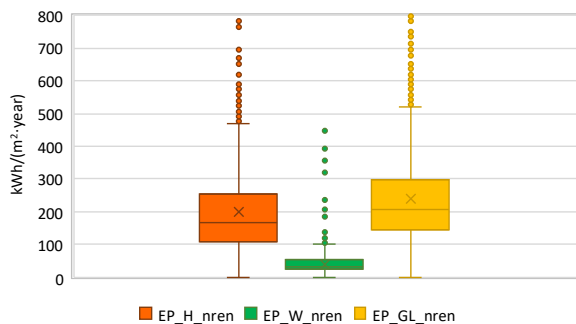
**CO<sub>2</sub> EMISSION**



**HEATING SYSTEM INSTALLATION YEAR**



**NON-RENEWABLE PRIMARY ENERGY USE**



**RENEWABLE PRIMARY ENERGY USE**

