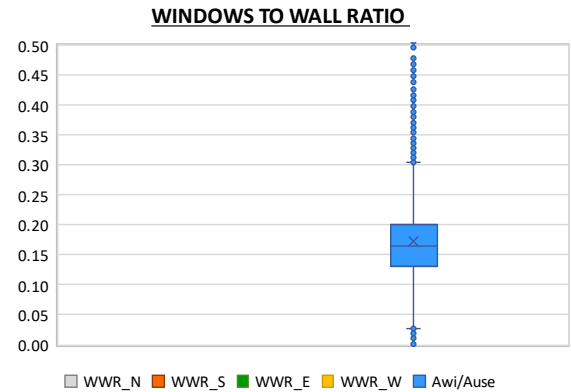
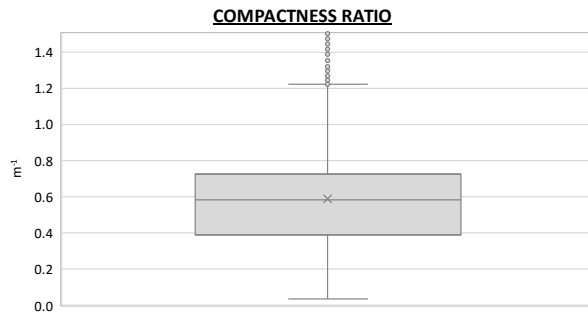


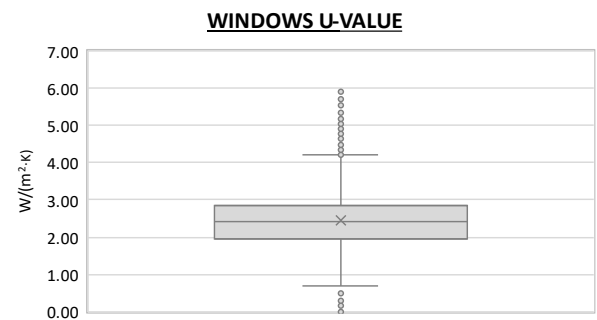
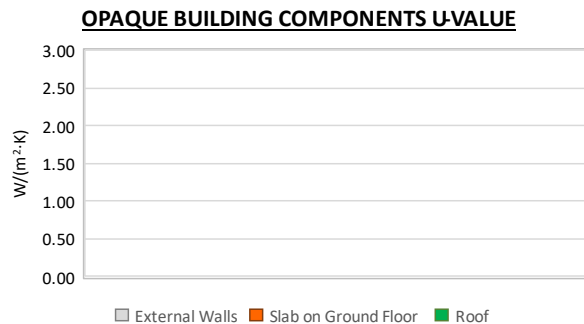
Region:	Piedmont						Archetype code: RES_APPBLOCK_2001-2010_E_PIE	
Building category:	Residential buildings - Apartments (in multifamily blocks)							
Period of construction:	2001-2010							
Climatic zone:	E	Number of records:		18517				
Description (the codes associated with walls and slabs refer 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>	0.58	0.33	0.39	0.58	0.72
	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	0.17	0.13	0.17	0.20
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fl;up}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	External walls type	Hollow brick masonry: 78%; Solid Brick masonry: 19%; Unknown: 2%; Prefabricated panels: 1%						
	U-value of the wall	$U_{wl}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	Slab on ground floor type	-						
	U-value of the floor	$U_{fl;lw}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	Windows type	-						
	U-value of the windows	$U_W$	W/(m <sup>2</sup> ·K)	2.44	0.68	1.96	2.43	2.86
Shading system type	-							
GAINS and VENTILATION	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%						
	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Autonomous: 82%; Centralized: 18%						
	Heating generator	-						
	Daily operating time of the heating system *	$t_H$	h	14.00	0.00	14.00	14.00	14.00
	Energy carrier	Natural Gas: 80%; Electricity: 6%; District heating: 6%; Solid biomass: 4%; LPG: 2%; Gas Oil: 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: 79%; Centralized, coupled with heating: 16%; Autonomous, detached from heating: 4%; Centralized, detached from heating: 1%						
	DHW generator	-						
	* These values are derived from UNI EN ISO Standards							

<b>Region:</b>	Piedmont	<b>Archetype code:</b> RES_APPBLOCK_2001- 2010_E_PIE
<b>Building category:</b>	Residential buildings - Apartments (in multifamily blocks)	
<b>Period of construction:</b>	2001-2010	
<b>Climatic zone:</b>	E	
<b>Number of records:</b>		18517

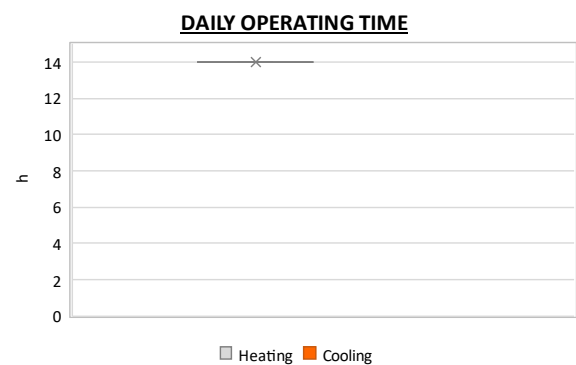
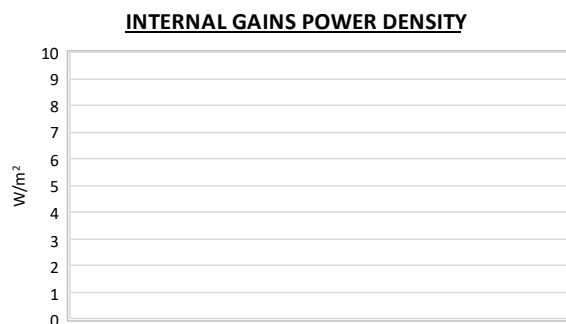
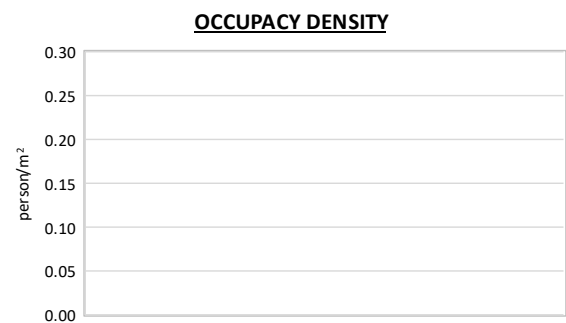
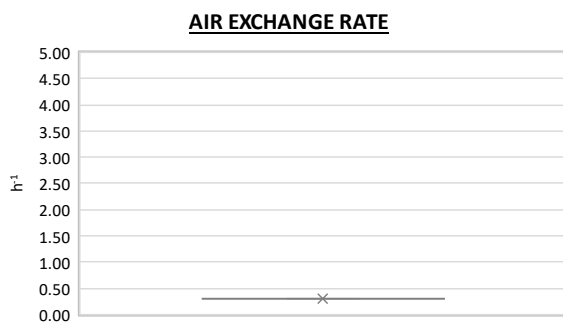
### Numerical variables – GEOMETRY



### Numerical variables – ENVELOPE



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

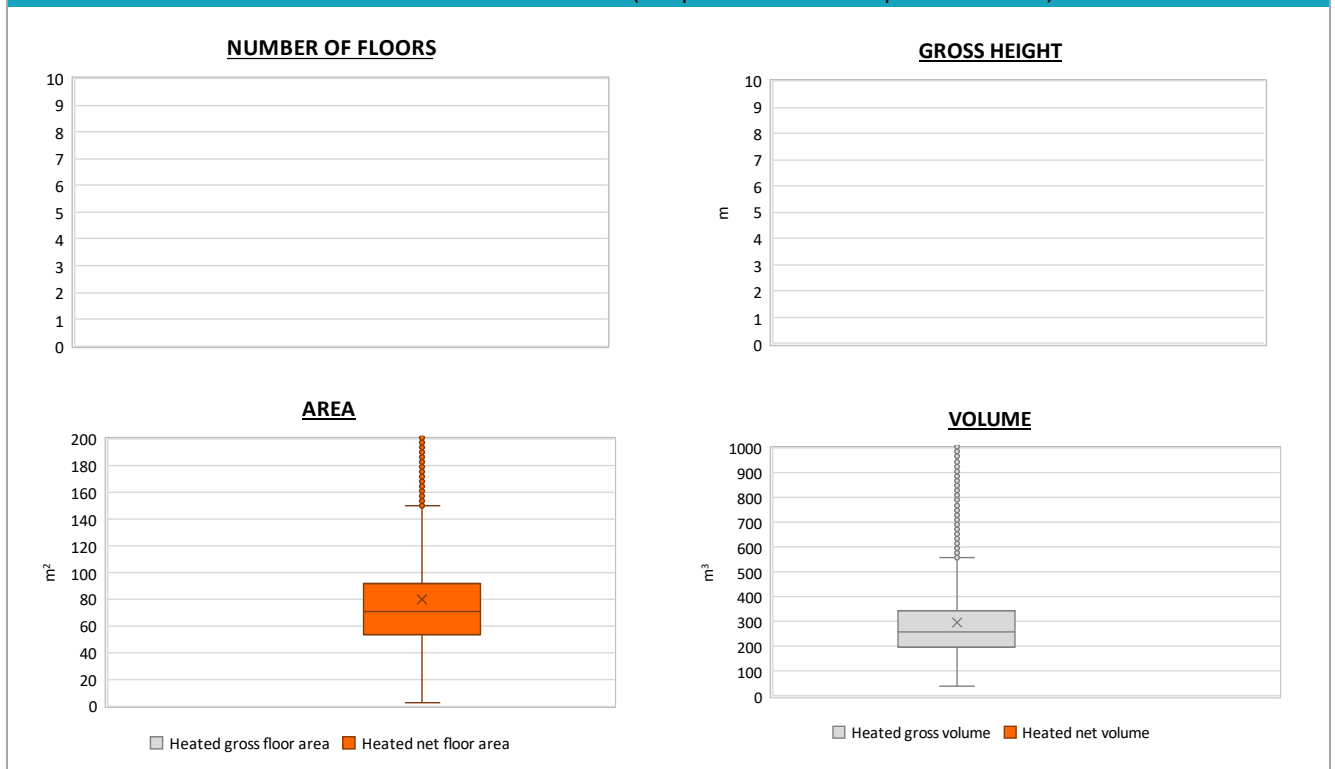


Region:	Piedmont			Archetype code: RES_APPBLOCK_2001- 2010_E_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)			
Period of construction:	2001-2010			
Climatic zone:	E	Number of records:	18517	

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>	80.0	42.9	53.7	70.5	92.1
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	297.7	166.3	199.1	261.1	342.4
	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	24.6	3.7	23.8	24.0	25.8
	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	5.3	5.2	3.0	3.5	5.3
	Temperature of DHW	$\vartheta_W$	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	24.3	4.5	23.8	24.0	25.8

\* These values refer to the apartment scale

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



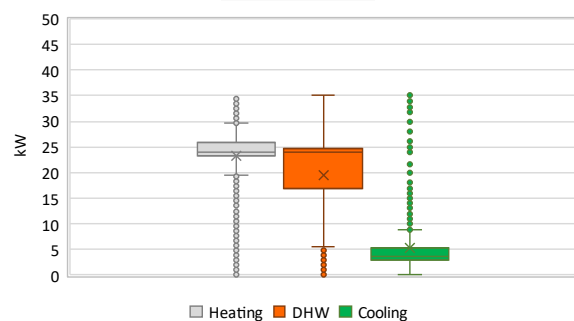
Region:	Piedmont	Archetype code: RES_APPBLOCK_2001- 2010_E_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	2001-2010	
Climatic zone:	E	
Number of records:		18517

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

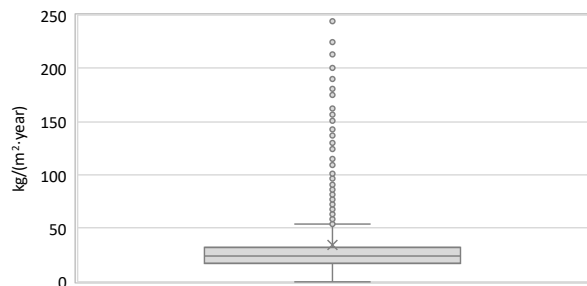
**DHW SUPPLY TEMPERATURE**



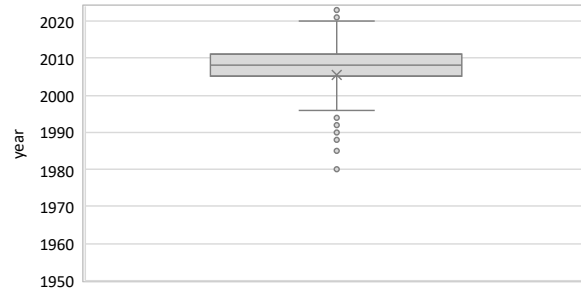
**SYSTEM POWER**



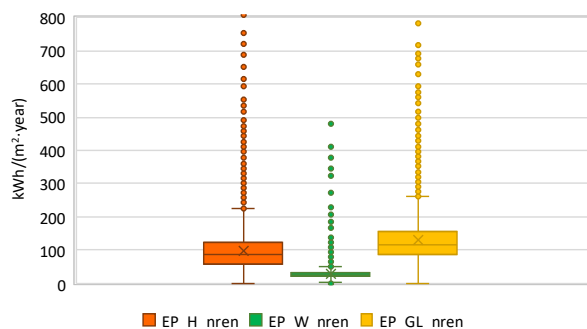
**CO<sub>2</sub> EMISSION**



**HEATING SYSTEM INSTALLATION YEAR**



**NON-RENEWABLE PRIMARY ENERGY USE**



**RENEWABLE PRIMARY ENERGY USE**

