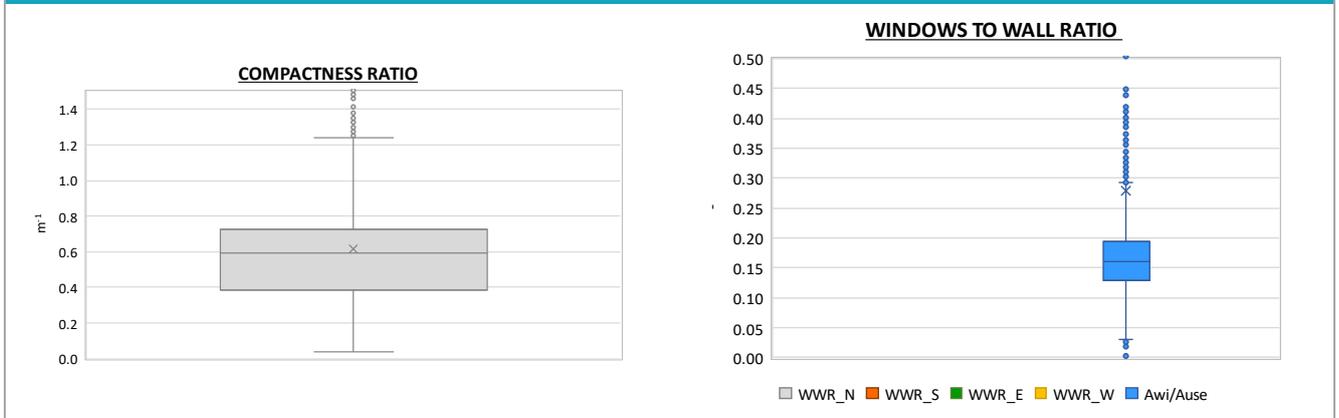
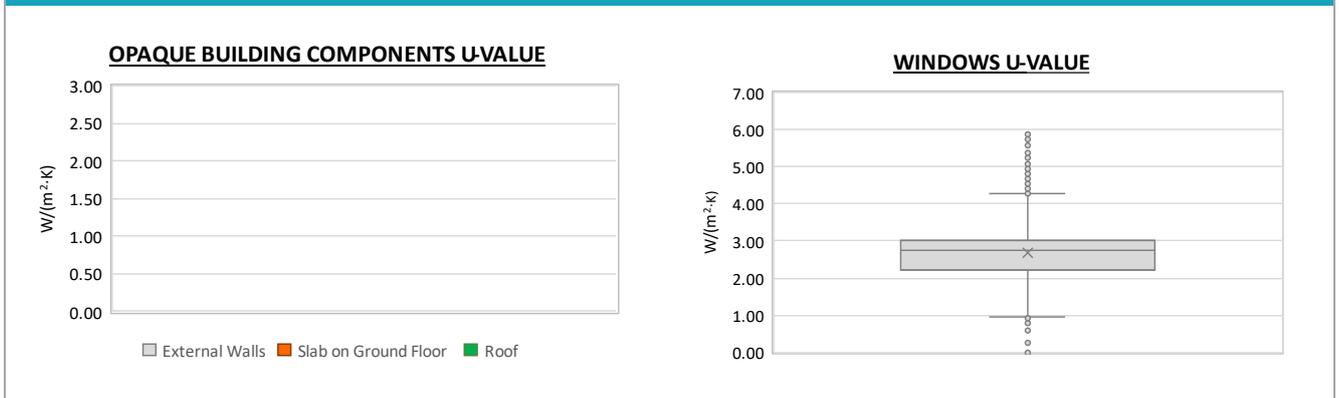
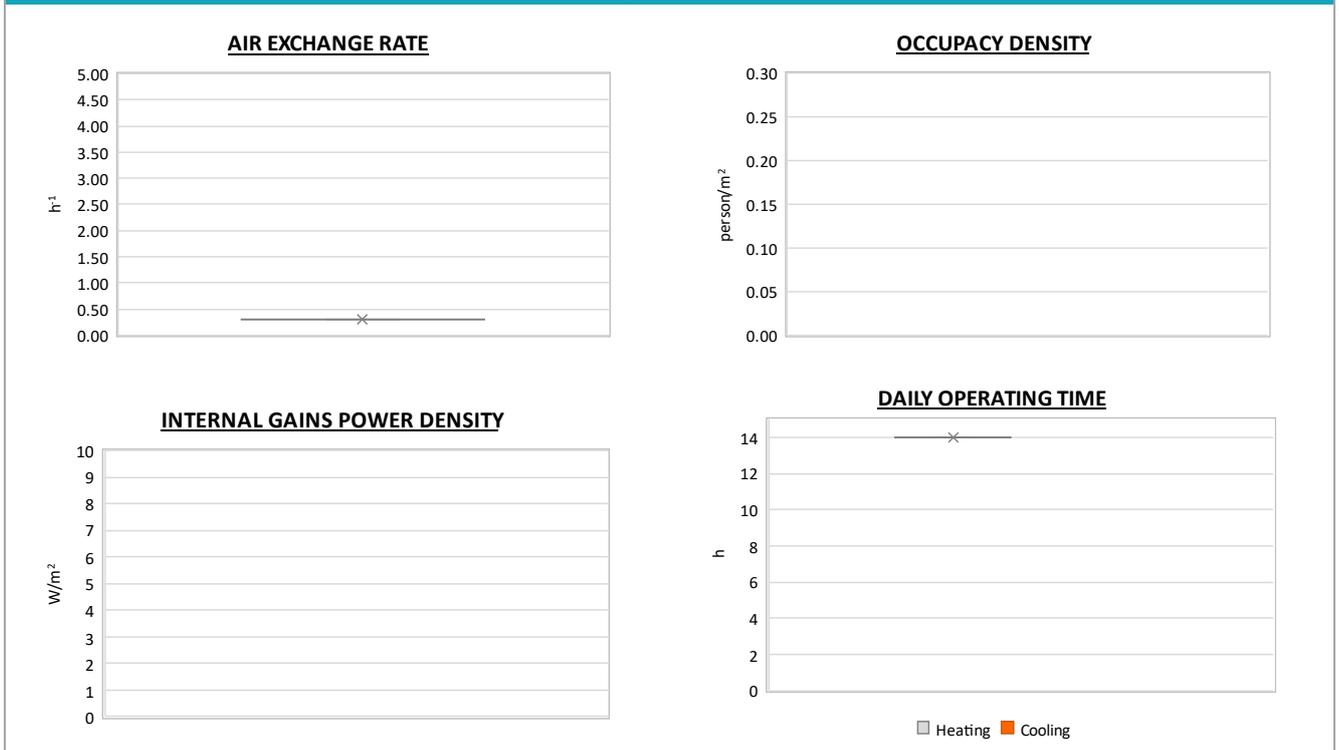


Region:	Piedmont						Archetype code:		
Building category:	Residential buildings - Apartments (in multifamily blocks)						RES_APPBLOCK_1991-2000_E_PIE		
Period of construction:	1991-2000								
Climatic zone:	E	Number of records:		12567					
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014):						Data sources:			
<u>External walls</u> : hollow brick masonry with thermal insulation (cod. MCV02). <u>Roof slabs</u> : reinforced concrete floor slab (cod. SOLO4).						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>	0.62	2.86	0.38	0.59	0.73	
	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	$A_{wi}/A_{\text{use}}$	-	0.28	11.11	0.13	0.16	0.19	
ENVELOPE	Roof type	-							
	U-value of the roof	$U_{fi,up}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-	
	External walls type	Hollow brick masonry: 76%; Solid Brick masonry: 21%; Unknown: 2%; 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)	2.67	0.75	2.20	2.76	3.03	
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: 96%; Centralized: 4%							
	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: 79%; Electricity: 7%; District heating: 5%; Solid biomass: 4%; LPG: 3%; 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: 91%; Autonomous, detached from heating: 4%; Centralized, coupled with 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_1991- 2000_E_PIE
<b>Building category:</b>	Residential buildings - Apartments (in multifamily blocks)		
<b>Period of construction:</b>	1991-2000		
<b>Climatic zone:</b>	E	<b>Number of records:</b> 12567	

**Numerical variables – GEOMETRY**

**Numerical variables – ENVELOPE**

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


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.

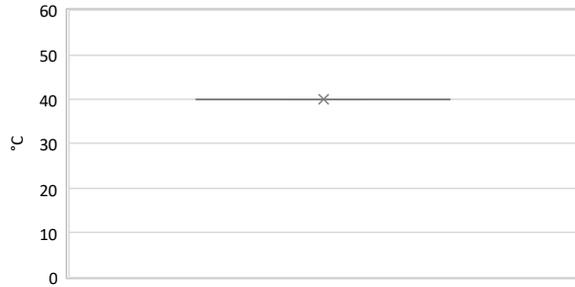
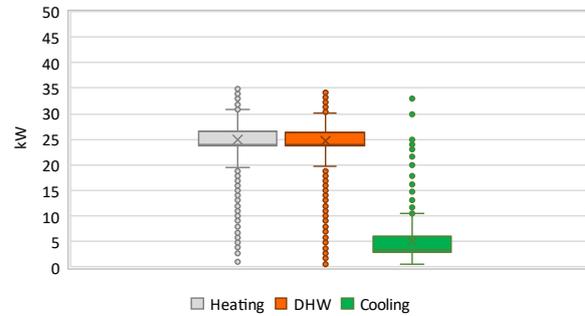
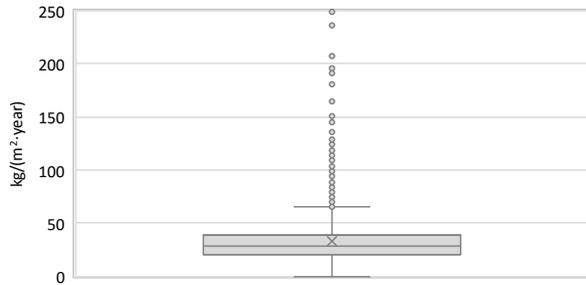
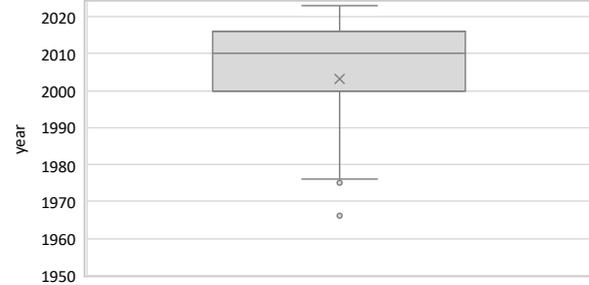
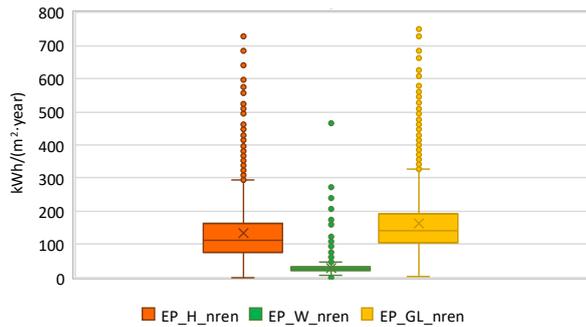
<b>Region:</b>	Piedmont		<b>Archetype code:</b> RES_APPBLOCK_1991- 2000_E_PIE
<b>Building category:</b>	Residential buildings - Apartments (in multifamily blocks)		
<b>Period of construction:</b>	1991-2000		
<b>Climatic zone:</b>	E	<b>Number of records:</b> 12567	

ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
<b>GEOMETRY:</b> 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>	94.9	48.9	65.5	83.1	109.5
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	350.3	187.2	239.4	304.1	406.2
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	-	-	-	-	-
<b>THERMAL SYSTEMS</b>	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	25.0	3.7	23.8	24.0	26.6
	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	5.1	4.0	2.9	3.5	5.9
	Temperature of DHW	$\vartheta_w$	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	24.6	4.7	23.7	24.0	26.3

\* These values refer to the apartment scale

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


<b>Region:</b>	Piedmont		<b>Archetype code:</b> RES_APPBLOCK_1991- 2000_E_PIE
<b>Building category:</b>	Residential buildings - Apartments (in multifamily blocks)		
<b>Period of construction:</b>	1991-2000		
<b>Climatic zone:</b>	E	<b>Number of records:</b> 12567	

**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**
