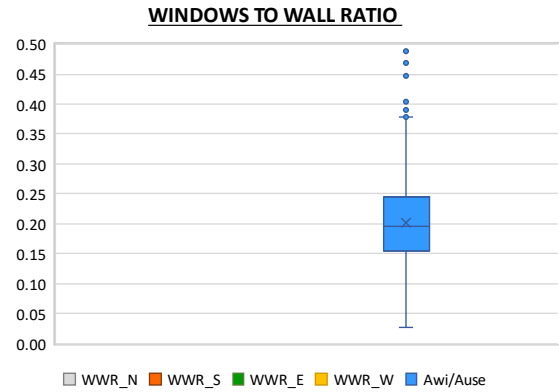
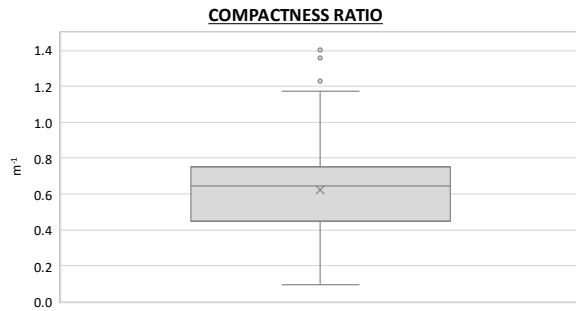


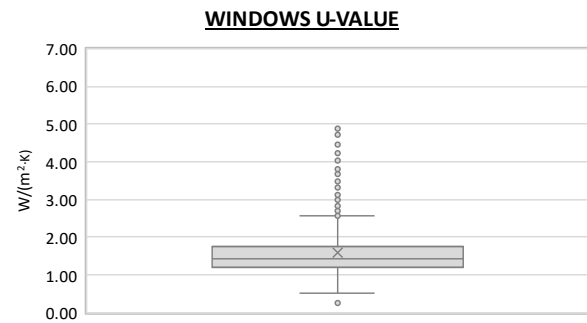
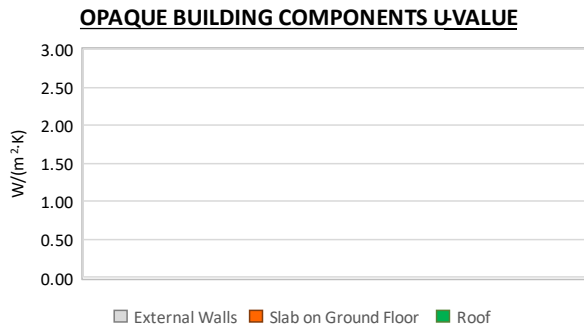
Region:	Piedmont						Archetype code: RES_APPBLOCK_2011- _F_PIE	
Building category:	Residential buildings - Apartments (in multifamily blocks)							
Period of construction:	> 2010							
Climatic zone:	F	Number of records:				1165		
Description (the codes associated with walls and slabs refer to the 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 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	0.62	0.24	0.45	0.64	0.75
	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}	-	0.20	0.07	0.15	0.20	0.24
	ENVELOPE	Roof type	-					
U-value of the roof		$U_{fi;up}$	W/(m ² ·K)	-	-	-	-	-
External walls type		Hollow brick masonry: 73%; Solid Brick masonry: 19%; Unknown: 7%; Prefabricated panels: 1%						
U-value of the wall		U_{wi}	W/(m ² ·K)	-	-	-	-	-
Slab on ground floor type		-						
U-value of the floor		$U_{fi;lw}$	W/(m ² ·K)	-	-	-	-	-
Windows type		-						
U-value of the windows		U_W	W/(m ² ·K)	1.59	0.68	1.20	1.44	1.74
GAINS and VENTILATION	Shading system type	-						
	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%						
THERMAL SYSTEMS	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
	Heating system type	Autonomous: 61%; Centralized: 39%						
	Heating generator	-						
	Daily operating time of the heating system *	t_H	h	No limitation				
	Energy carrier	Natural Gas: 57%; Electricity: 25%; District heating: 8%; Solid biomass: 6%; LPG: 2%; Liquid and gaseous biomass: 1%; Gas Oil: 1%						
	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: 47%; Centralized, coupled with heating: 35%; Autonomous, detached from heating: 17%; Centralized, detached from heating: 1%						
	DHW generator	-						
* These values are derived from UNI EN ISO Standards								

Region:	Piedmont	Archetype code: RES_APPBLOCK_2011- _F_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	> 2010	
Climatic zone:	F	
Number of records:		1165

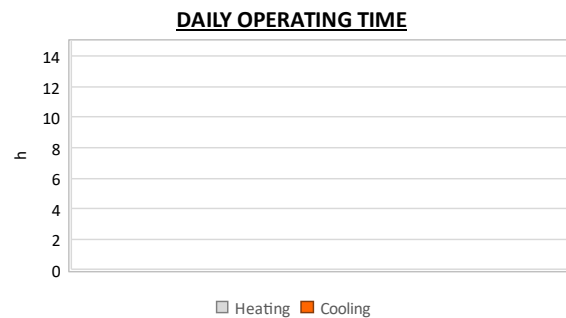
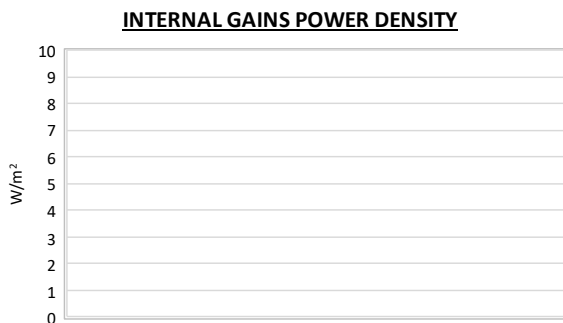
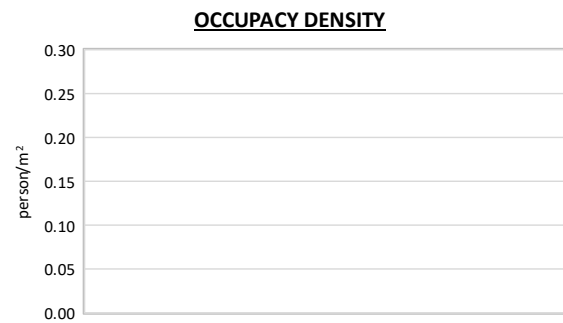
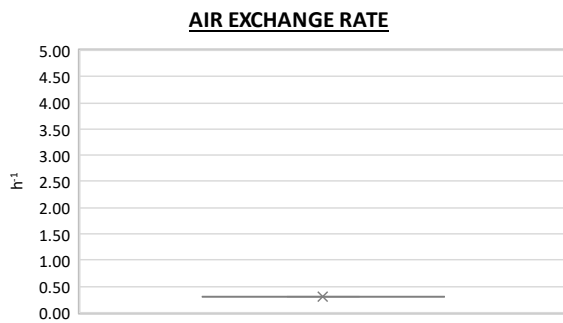
Numerical variables – GEOMETRY



Numerical variables – ENVELOPE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

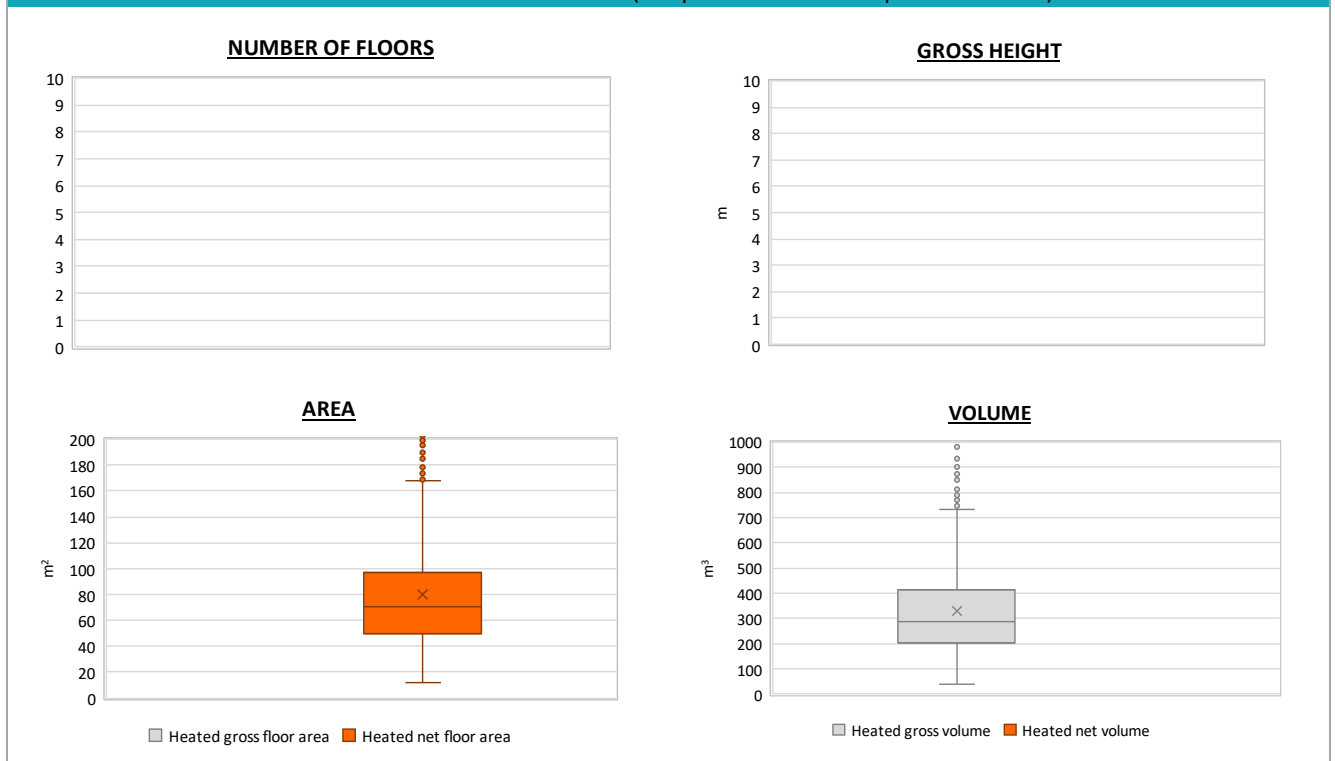


Region:	Piedmont			Archetype code: RES_APPBLOCK_2011- _F_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)			
Period of construction:	> 2010			
Climatic zone:	F	Number of records:	1165	

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 ²	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m ²	79.8	40.4	49.8	70.8	97.4
	Heated gross volume	$V_{H,g}$	m ³	330.0	176.7	202.0	287.8	414.6
	Heated net volume	$V_{H,n}$	m 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	20.7	9.7	11.7	23.7	27.6
	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	7.7	3.6	6.6	6.6	6.6
	Temperature of DHW	ϑ_w	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power *	$P_{W,gen}$	kW	20.0	10.8	9.6	24.0	27.7

* These values refer to the apartment scale

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



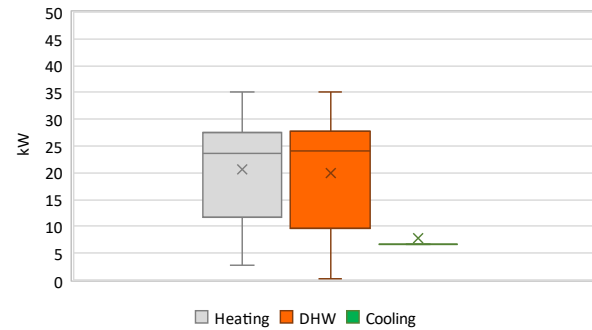
Region:	Piedmont	Archetype code: RES_APPBLOCK_2011- _F_PIE
Building category:	Residential buildings - Apartments (in multifamily blocks)	
Period of construction:	> 2010	
Climatic zone:	F	
Number of records:		1165

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

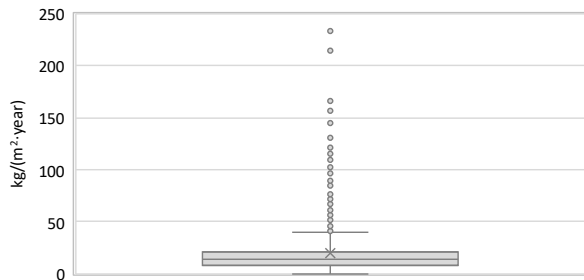
DHW SUPPLY TEMPERATURE



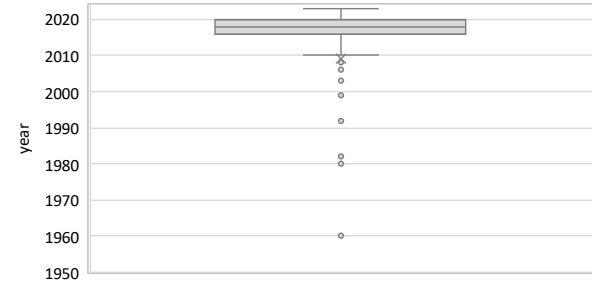
SYSTEM POWER



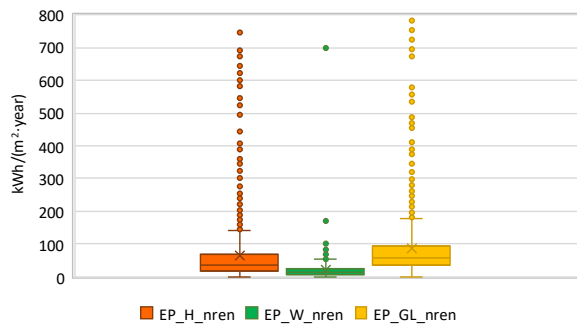
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

