Region:	Piedmont		Archetype code:
Building category:	Residential buildings - Single family houses		RES_SINGLE_-1930_E_PIE
Period of construction:	< 1930		
Climatic zone:	E	Number of records: 12807	

Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014):

External walls: solid brick masonry (cod. MLP01).
Roof slabs: pitched wooden roof (cod. CIN05).

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	$A_{footprint}$	m²	-	-	-	-	-
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	127.1	79.5	77.0	111.4	157.2
	Heated gross volume	$V_{H;g}$	m³	531.8	347.3	317.9	460.2	654.2
	Heated net volume	$V_{H;n}$	m³	-	-	-	-	-
	Compactness ratio	$A_{env}/V_{H;g}$	m⁻¹	0.77	0.23	0.64	0.75	0.87
	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}	-	0.15	0.09	0.11	0.14	0.18
ENVELOPE	Roof type		-					
	U-value of the roof	$U_{fl;up}$	W/(m²·K)	-	-	-	-	-
	External walls type		Solid Brick masonry: 89%; Hollow brick masonry: 6%; Unknown: 5%					
	U-value of the wall	U_{wl}	W/(m²·K)	-	-	-	-	-
	Slab on ground floor type		-					
	U-value of the floor	$U_{fl;lw}$	W/(m²·K)	-	-	-	-	-
	Windows type		-					
	U-value of the windows	U_W	W/(m²·K)	3.28	1.30	2.21	3.15	4.37
	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: 100%					
	Air exchange rate *	n	h⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type		Autonomous: 100%					
	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: 84%; Electricity: 6%; Solid biomass: 4%; LPG: 2%; District heating: 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: 56%; Autonomous, detached from heating: 24%; Centralized, coupled with heating: 19%; Centralized, detached from heating: 1%					
	DHW generator		-					
	* These values are derived from UNI EN ISO Standards							

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Numerical variables – GEOMETRY

NUMBER OF FLOORS

GROSS HEIGHT

AREA

☐ Heated gross floor area ☐ Heated net floor area

VOLUME
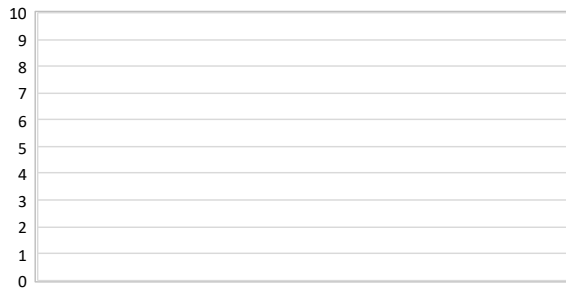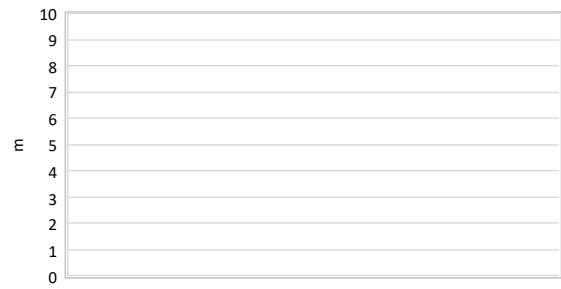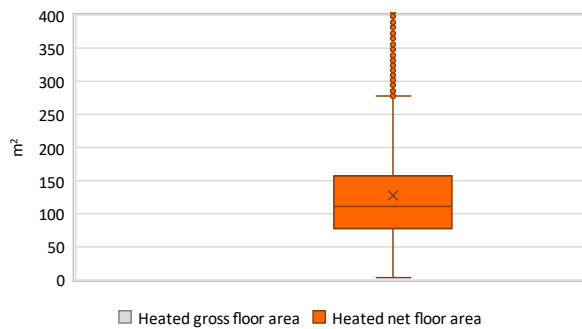
☐ Heated gross volume ☐ Heated net volume
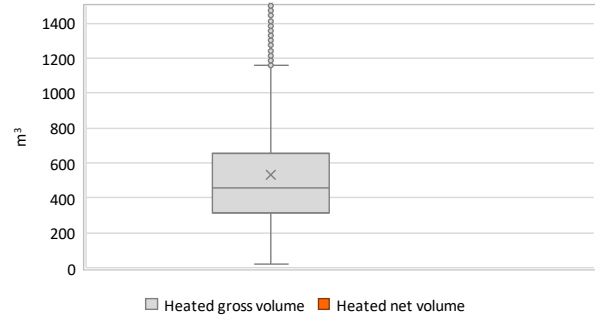
COMPACTNESS RATIO

WINDOWS TO WALL RATIO

☐ WWR_N ☐ WWR_S ☐ WWR_E ☐ WWR_W ☐ Awi/Ause
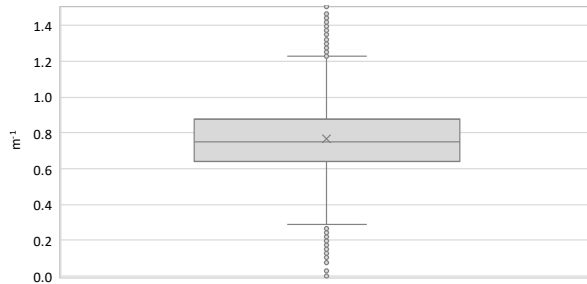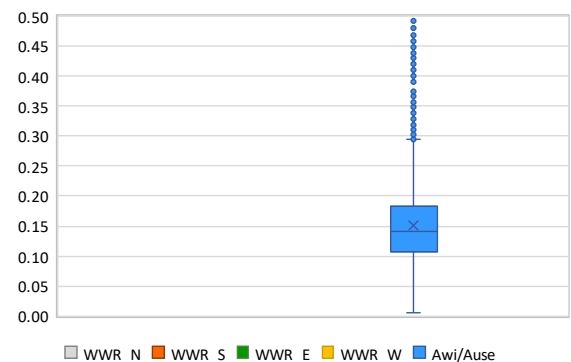
Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE

☐ External Walls ☐ Slab on Ground Floor ☐ Roof

WINDOWS U-VALUE

Region:	Piedmont		Archetype code:	
Building category:	Residential buildings - Single family houses		RES_SINGLE_-1930_E_PIE	
Period of construction:	< 1930			
Climatic zone:	E	Number of records:	12807	

ADDITIONAL DATA

	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
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	28.4	75.3	23.3	24.4	29.1
	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	8.0	7.9	3.5	5.4	9.3
	Temperature of DHW	ϑ_W	°C	40.0	0.0	40.0	40.0	40.0
	DHW system power	$P_{W;gen}$	kW	23.9	74.5	15.0	24.0	28.0

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

AIR EXCHANGE RATE

OCCUPACY DENSITY

INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME

□ Heating ■ Cooling

URBEM

Region:	Piedmont	Archetype code:
Building category:	Residential buildings - Single family houses	RES_SINGLE_-1930_E_PIE
Period of construction:	< 1930	
Climatic zone:	E	Number of records: 12807

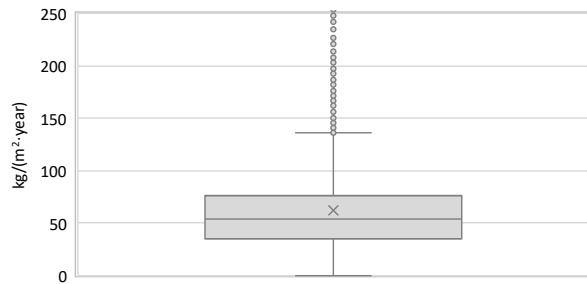### Additional data: other numerical variables that are not included in the archetype
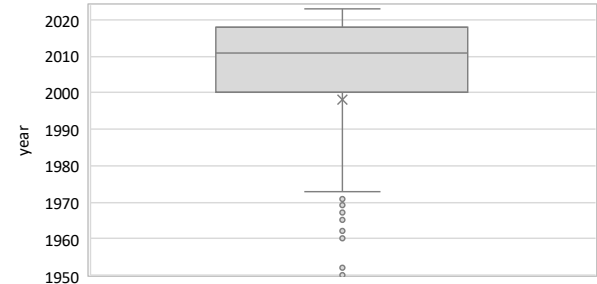
DHW SUPPLY TEMPERATURE
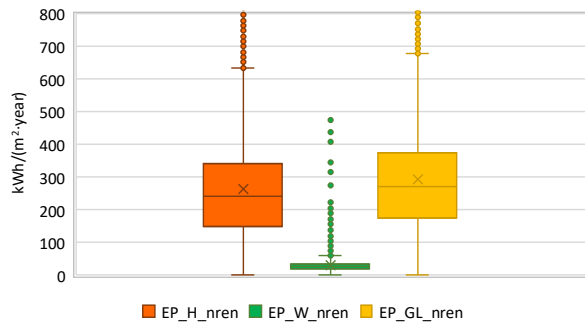

SYSTEM POWER
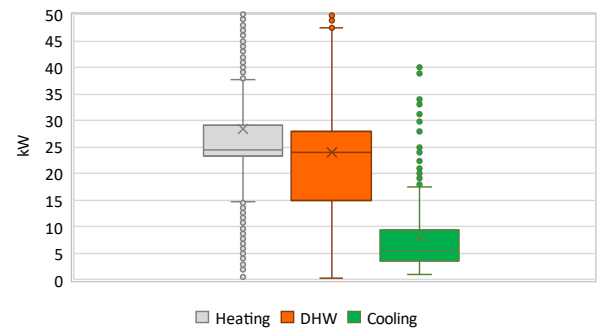
CO₂ EMISSION

HEATING SYSTEM INSTALLATION YEAR

NON-RENEWABLE PRIMARY ENERGY USE

RENEWABLE PRIMARY ENERGY USE