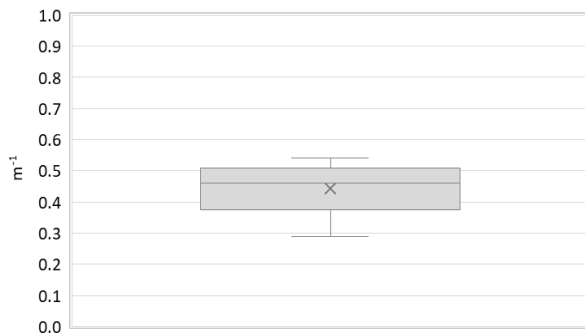


Region:	Lazio						Archetype code: RES_APPBLOCK_ 1961-1975_D_LAZ	
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1961-1975							
Climatic zone:	D	Number of records:				13		
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: double layer of hollow bricks with uninsulated air gap (cod. MCV01). Roof slabs: reinforced brick-concrete slab plus uninsulated concrete screed (cod. SOL04)							Data sources: Energy audits (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	-	5.15	1.52	5	5	5
	Gross height	H_g	m	21.19	5.67	19.18	19.98	25.92
	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	3040.43	1765.92	1786.45	2929.59	4288.26
	Heated gross volume	$V_{H,g}$	m ³	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m ³	7556.96	5467.28	3502.86	6103.31	9794.12
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m ⁻¹	0.44	0.08	0.39	0.46	0.51
	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}	-	0.14	0.02	0.13	0.14	0.15
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{f;up}$	W/(m ² ·K)	1.52	0.11	1.41	1.56	1.61
	External walls type	Hollow brick masonry: 100%						
	U-value of the wall	U_{wl}	W/(m ² ·K)	1.10	0.11	1.01	1.15	1.17
	Slab on ground floor type	Brick-concrete slab: 100%						
	U-value of the floor	$U_{f;l,w}$	W/(m ² ·K)	1.19	0.44	0.81	1.27	1.55
	Windows type	-						
	U-value of the windows	U_w	W/(m ² ·K)	3.69	0.39	3.53	3.65	4.02
Shading system type	-							
GAINS and VENTILATION	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	-						
	Air exchange rate *	n	h ⁻¹	0.30	0.00	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Centralized: 100%						
	Heating generator	Traditional boiler: 92%; Condensing boiler: 8%						
	Daily operating time of the heating system *	t_H	h	12.00	0.00	12.00	12.00	12.00
	Energy carrier	Natural gas: 100%						
	Heating emission sub-system	Radiators: 100%						
	Cooling system type	Absent: 100%						
	Daily operating time of the cooling system *	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Autonomous – coupled with heating: 100%						
	DHW generator	-						
	* These values were not available in the considered sources, and are thus derived from UNI EN Standards							

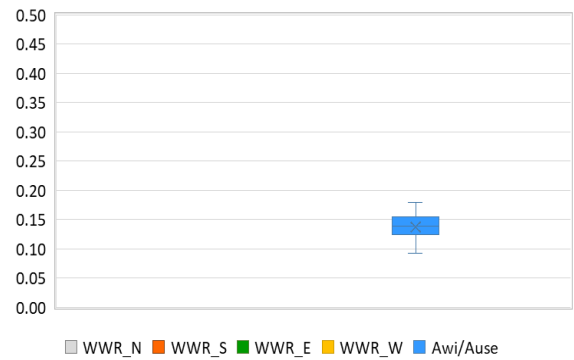
Region:	Lazio	Archetype code: RES_APPBLOCK_ 1961-1975_D_LAZ
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1975	
Climatic zone:	D	
Number of records:		13

Numerical variables – GEOMETRY

COMPACTNESS RATIO

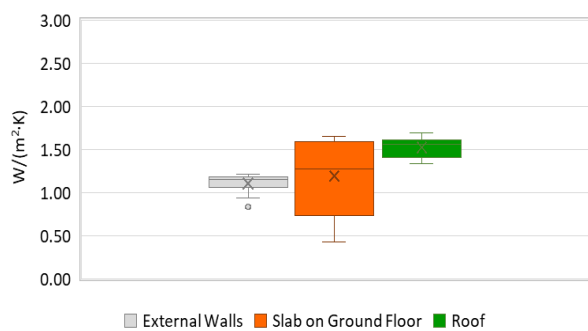


WINDOWS TO WALL RATIO

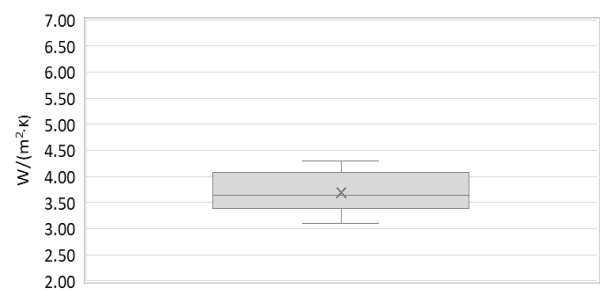


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE

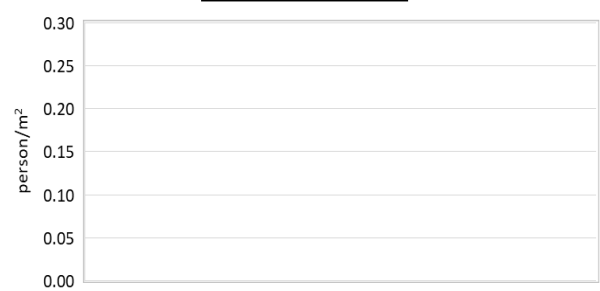


Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

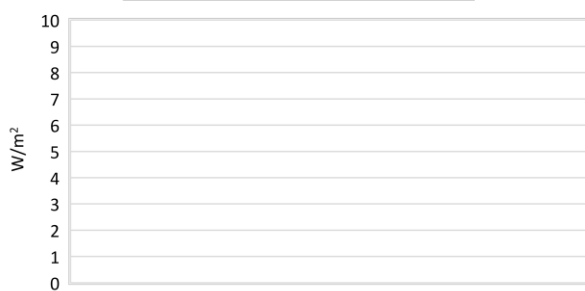
AIR EXCHANGE RATE



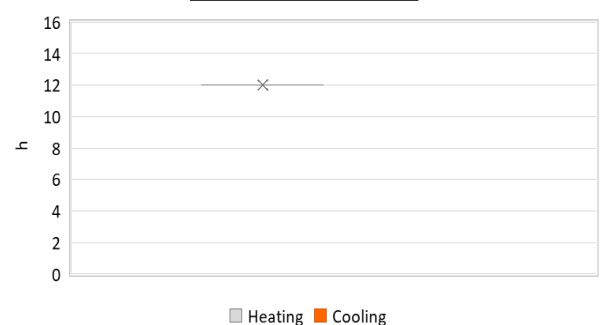
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



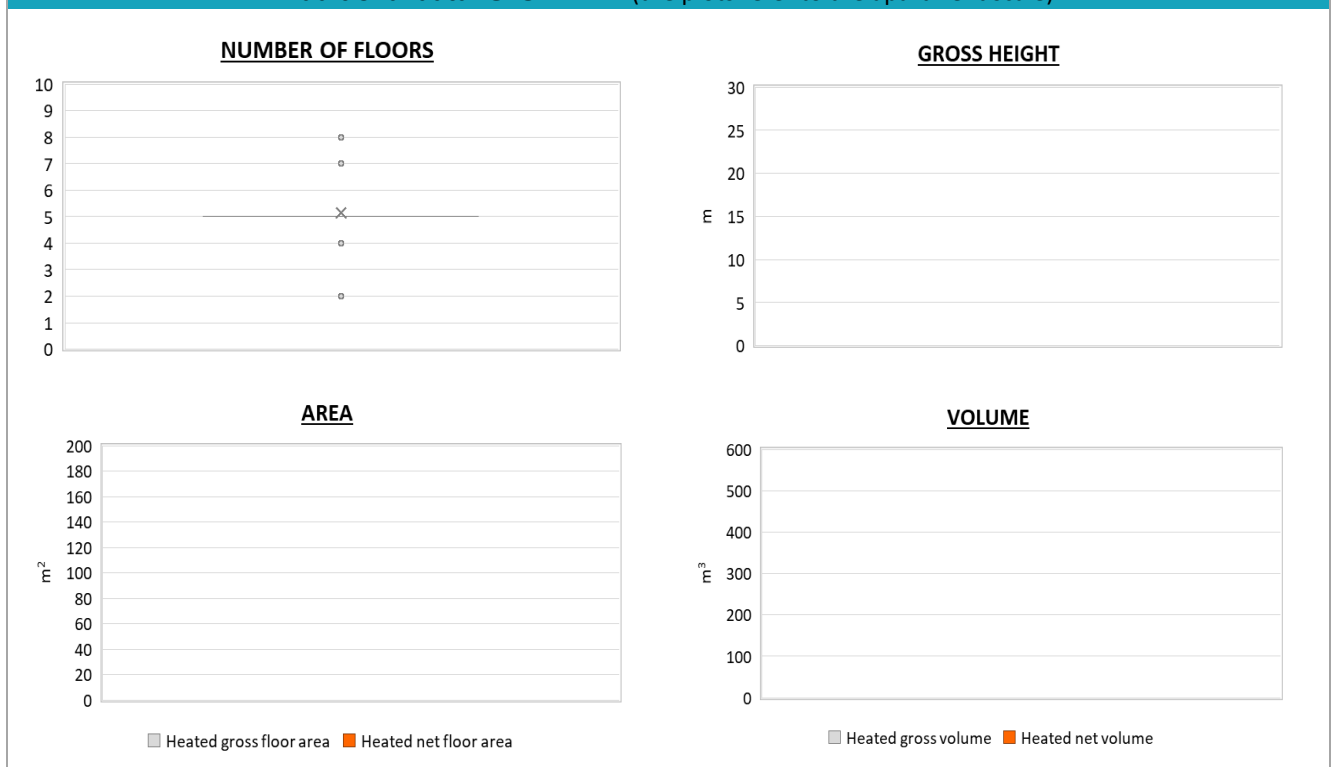
DAILY OPERATING TIME



Region:	Lazio	Archetype code: RES_APPBLOCK_ 1961-1975_D_LAZ
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1975	
Climatic zone:	D	
Number of records:		13

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	-	-	-	-	-
	Heated gross volume	$V_{H,g}$	m ³	-	-	-	-	-
	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	266.24	185.31	115.00	217.20	318.00
	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	-	-	-	-	-
	Temperature of DHW	θ_w	°C	48.00	0.00	48.00	48.00	48.00
	DHW system power	$P_{W,gen}$	kW	40.72	70.10	41.19	67.55	98.87
* These values refer to the apartment scale								

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



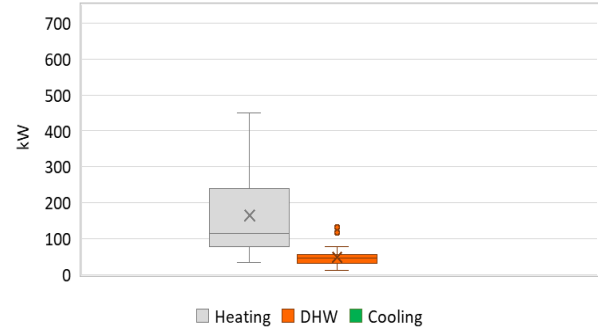
Region:	Lazio	Archetype code: RES_APPBLOCK_ 1961-1975_D_LAZ
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1961-1975	
Climatic zone:	D	
Number of records:		13

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

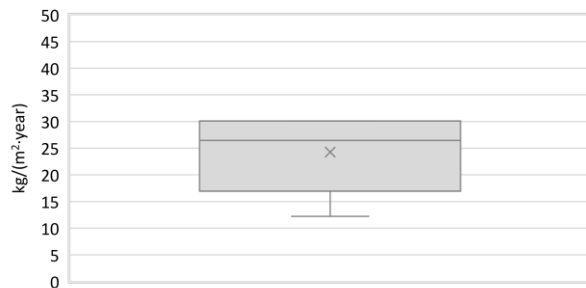
DHW SUPPLY TEMPERATURE



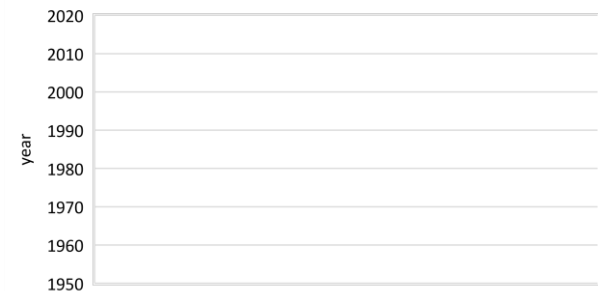
SYSTEM POWER



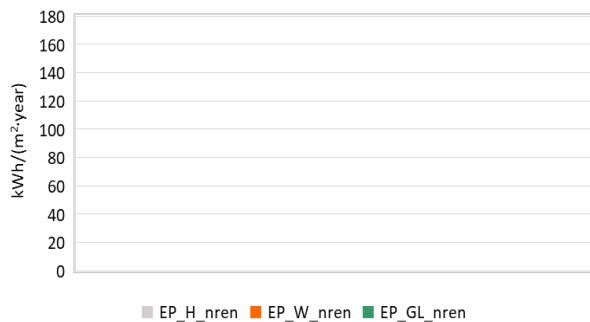
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

