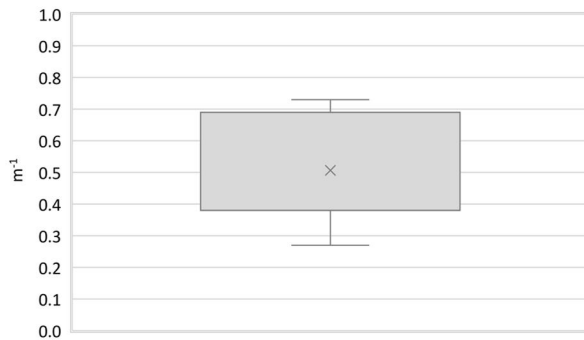


Region:	Sicily					Archetype code: RES_APPBLOCK_ 1971-1980_B_SIC		
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1971-1980							
Climatic zone:	B	Number of records:			19			
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: double layer of hollow bricks (8 cm + 12 cm) with uninsulated air gap (cod. MCV01). Roof slabs: reinforced brick-concrete slab (22 cm) plus uninsulated concrete screed (4 cm) (cod. SOL04)						Data sources: Survey data (56%) Export assumptions (28%) Municipal database (1%) Others (15%) #		
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	4.94	1.65	4.00	4.00	7.00
	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	0.50	0.17	0.38	0.38	0.68
	WWR – North orientation	WWR_N	-	0.33	0.15	0.40	0.40	0.40
	WWR – South orientation	WWR_S	-	0.15	0.12	0.03	0.13	0.30
	WWR – East orientation	WWR_E	-	0.28	0.00	0.28	0.28	0.28
	WWR – West orientation	WWR_W	-	0.13	0.11	0.03	0.10	0.25
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.19	0.06	0.17	0.18	0.24
	ENVELOPE	Roof type	Reinforced brick-concrete slab: 83%, Reinforced brick-concrete slab low insulation: 17%					
U-value of the roof		$U_{f;up}$	W/(m ² ·K)	1.96	0.79	1.91	2.00	2.02
External walls type		Hollow brick masonry: 100%						
U-value of the wall		U_{wl}	W/(m ² ·K)	1.01	0.10	0.89	1.07	1.11
Slab on ground floor type		Reinforced brick-concrete slab: 100%						
U-value of the floor		$U_{f;l;w}$	W/(m ² ·K)	1.69	0.16	1.60	1.72	1.82
Windows type		Single glazing, aluminium frame: 84%, Double glazing, PVC frame: 16%						
U-value of the windows		U_W	W/(m ² ·K)	5.08	1.14	5.00	5.00	5.97
Shading system type	Shutter: 100%							
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	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	Traditional boiler: 47%; Air source heat pump: 37%, Condensing boiler: 16%						
	Daily operating time of the heating system *	t_H	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural gas: 63%, Electricity: 37%						
	Heating emission sub-system	Radiators: 63%, Fan coil: 37%						
	Cooling system type	Air-cooled chiller: 53%, Absent: 47%						
	Daily operating time of the cooling system *	t_C	h	8.00	0.00	8.00	8.00	8.00
	Cooling emission sub-system	Fan coil: 100%						
	DHW system type	Autonomous – coupled from heating: 58%, Autonomous - detached from heating: 42%						
	DHW generator	Natural gas boiler: 58%, Electric boiler: 42%						
	# Standards (13%), APE (2%). * These values were not available in the considered sources, and are thus derived from UNI EN Standards							

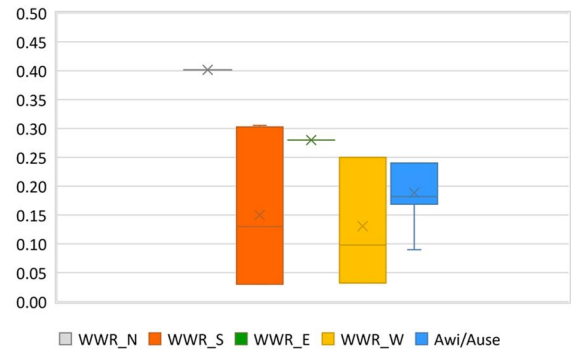
Region:	Sicily	Archetype code: RES_APPBLOCK_ 1971-1980_B_SIC
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1971-1980	
Climatic zone:	B	
Number of records:		19

Numerical variables – GEOMETRY

COMPACTNESS RATIO



WINDOWS TO WALL RATIO

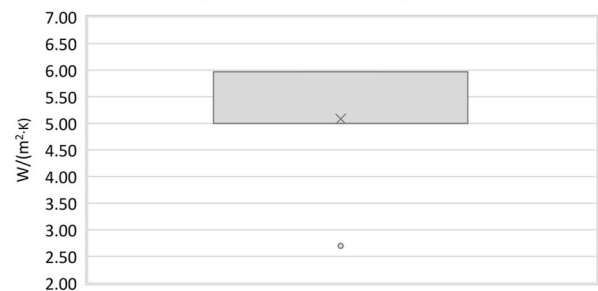


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



WINDOWS U-VALUE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

AIR EXCHANGE RATE



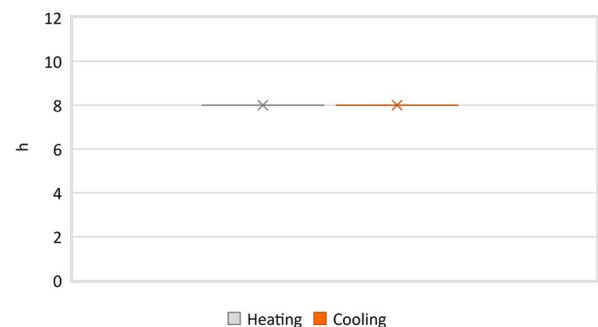
OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY



DAILY OPERATING TIME

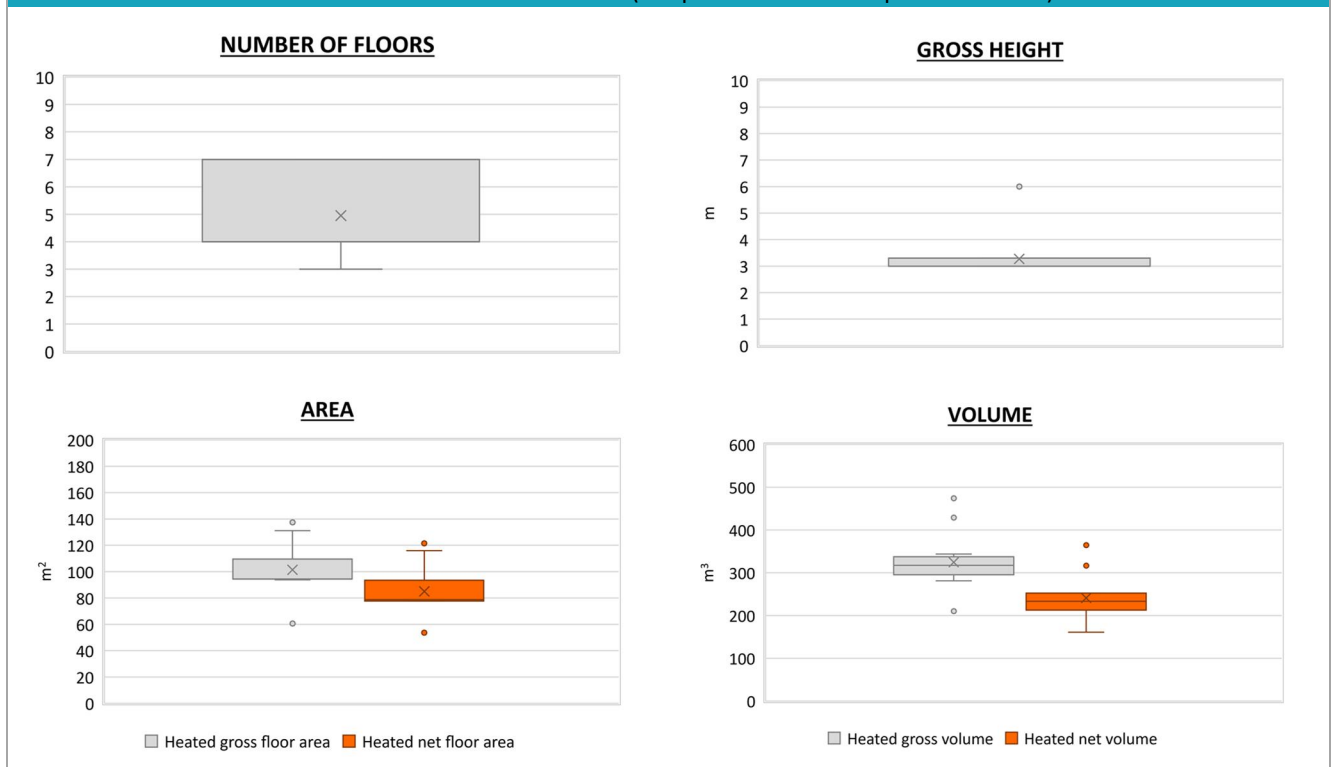


Region:	Sicily			Archetype code: RES_APPBLOCK_ 1971-1980_B_SIC
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1971-1980			
Climatic zone:	B	Number of records:	19	

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	3.25	0.67	3.00	3.00	3.30
	Heated gross floor area	$A_{H,g}$	m ²	101.33	16.33	94.40	94.40	109.60
	Heated net floor area	$A_{H,n}$	m ²	84.99	15.13	77.70	78.79	93.42
	Heated gross volume	$V_{H,g}$	m ³	324.68	54.32	295.62	317.21	332.37
	Heated net volume	$V_{H,n}$	m ³	241.05	41.84	212.76	233.20	252.23
THERMAL SYSTEMS	Heating efficiency or <i>COP</i>	$\eta_{H,gen}$ or $COP_{H,gen}$	-	This value has to be retrieved from suitable datasheet				
	Total heating power *	$P_{H,gen}$	kW	21.15	7.02	13.00	24.00	24.00
	Cooling efficiency or <i>EER</i>	$\eta_{C,gen}$ or $EER_{C,gen}$	-	This value has to be retrieved from suitable datasheet				
	Total cooling power *	$P_{C,gen}$	kW	9.25	1.45	8.75	10.00	10.00
	Temperature of DHW	θ_w	°C	40.00	0.00	40.00	40.00	40.00
	DHW system power *	$P_{W,gen}$	kW	15.60	11.30	1.20	24.00	24.00

* These values refer to the apartment scale

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



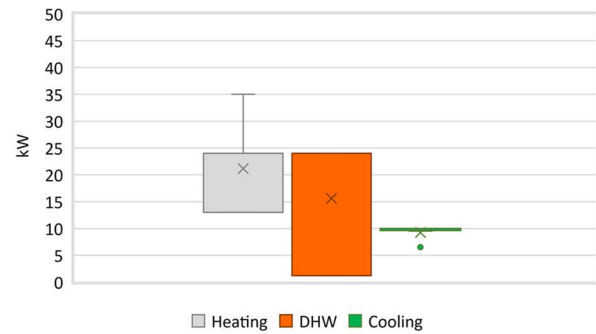
Region:	Sicily	Archetype code: RES_APPBLOCK_ 1971-1980_B_SIC
Building category:	Residential buildings – Apartments (in multifamily blocks)	
Period of construction:	1971-1980	
Climatic zone:	B	
Number of records:		19

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

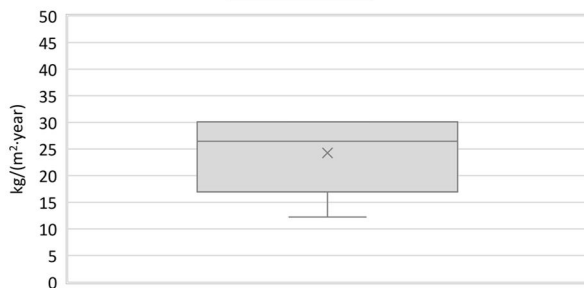
DHW SUPPLY TEMPERATURE



SYSTEM POWER



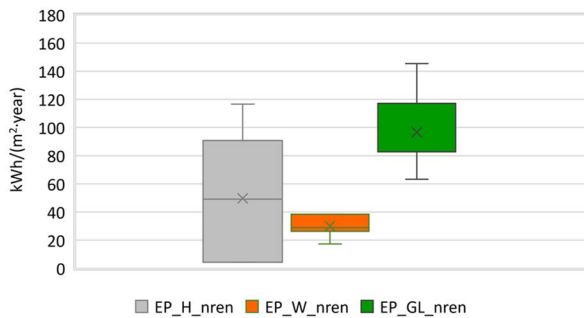
CO₂ EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE

