Region:	Calabria			**Archetype code:** RES_APPBLOCK_ 1991-2000_D_CAL
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1991-2000			
Climatic zone:	D	**Number of records:**	43	

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 (12 cm + 12 cm) with uninsulated air gap (cod. MCV01).
Roof slabs: *no data available*

Data sources:
Survey data (52%)
Measured data (16%)
Expert assumptions (12%)
Others (20%) #

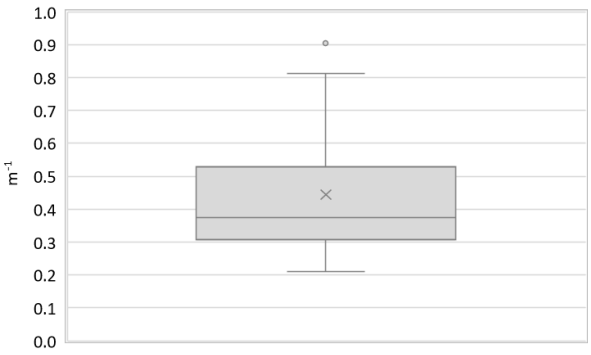
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
BUILDING GEOMETRY	Number of floors	n_f	-	1.95	1.48	1.00	1.00	3.00
	Gross height	H_g	m	-	-	-	-	-
	Footprint area	$A_{footprint}$	m²	-	-	-	-	-
	Heated gross floor area	$A_{H;g}$	m²	-	-	-	-	-
	Heated net floor area	$A_{H;n}$	m²	-	-	-	-	-
	Heated gross volume	$V_{H;g}$	m³	-	-	-	-	-
	Heated net volume	$V_{H;n}$	m³	-	-	-	-	-
	Compactness ratio	$A_{env}/V_{H;g}$	m^{-1}	0.44	0.18	0.31	0.37	0.53
	WWR – North orientation	WWR_N	-	0.16	0.13	0.06	0.12	0.23
	WWR – South orientation	WWR_S	-	0.18	0.16	0.06	0.13	0.26
	WWR – East orientation	WWR_E	-	0.18	0.17	0.07	0.17	0.24
	WWR – West orientation	WWR_W	-	0.15	0.10	0.07	0.13	0.20
	Window to useful floor area ratio	A_{wi}/A_{use}	-	0.14	0.09	0.09	0.12	0.16
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fl;up}$	W/(m²·K)	1.06	0.59	0.53	1.04	1.42
	External walls type	Hollow brick masonry: 84%, Solid brick masonry: 16%						
	U-value of the wall	U_{wl}	W/(m²·K)	0.81	0.39	0.50	0.77	0.93
	Slab on ground floor type	-						
	U-value of the floor	$U_{fl;lw}$	W/(m²·K)	1.05	0.62	0.56	0.98	1.44
	Windows type	Double glazing, wooden frame: 37%, Double glazing, aluminum frame with thermal break: 25%, Double glazing, aluminum frame, no thermal break: 21%, Single glazing, wooden frame: 5%, Single glazing, aluminum frame: 5%, Double glazing, PVC frame: 5%, Unknown: 2%						
	U-value of the windows	U_W	W/(m²·K)	3.19	1.20	2.60	2.80	3.80
	Shading system type	Roller blinds: 46%, Shutter: 42%, Curtains: 5%, Unknown: 7%						
GAINS and VENTILATION	Occupancy density	O_C	person/m²	0.036	0.018	0.025	0.031	0.045
	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	Traditional Boiler: 79%, Fireplace: 10%, Condensing Boiler: 9%, Unknown: 2%						
	Daily operating time of the heating system *	t_H	h	8.00	0.00	8.00	8.00	8.00
	Energy carrier	Natural Gas: 65%, LPG: 14%, Solid biomass: 10%, Electricity: 7%, Gas Oil 2%, Unknown: 2%						
	Heating emission sub-system	Radiators: 95%, Fan coil: 5%						
	Cooling system type	Absent: 100%						
	Daily operating time of the cooling system	t_C	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	-						
	DHW generator	-						

Standards (8%), Municipal database (8%), EPC database (4%).
* These values were not available in the considered sources, and are thus derived from UNI EN Standards

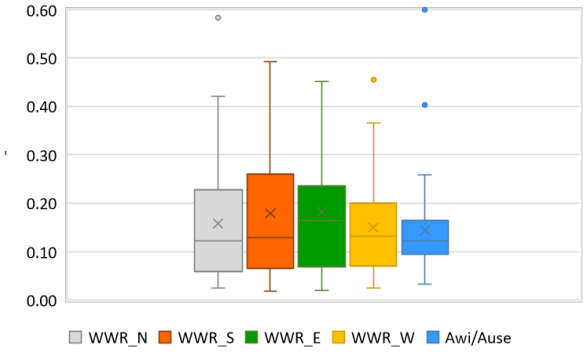
Region:	Calabria			Archetype code:
Building category:	Residential buildings – Apartments (in multifamily blocks)			RES_APPBLOCK_ 1991-2000_D_CAL
Period of construction:	1991-2000			
Climatic zone:	D	Number of records:	43	

Numerical variables – GEOMETRY

COMPACTNESS RATIO

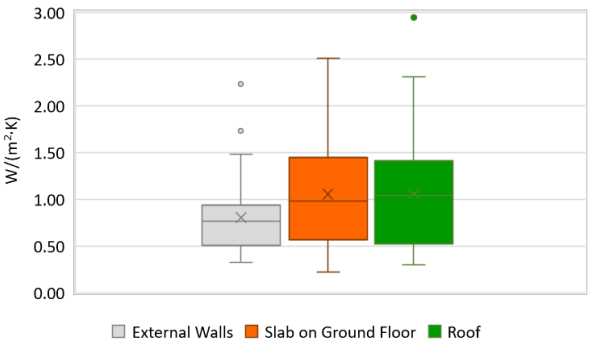


WINDOWS TO WALL RATIO

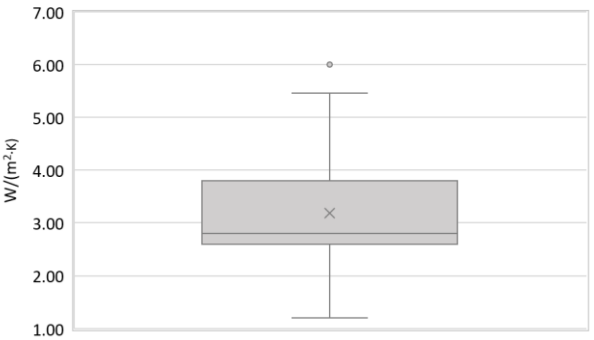


Numerical variables – ENVELOPE

OPAQUE BUILDING COMPONENTS U-VALUE



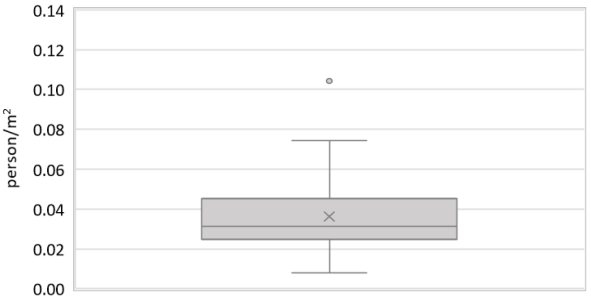
WINDOWS U-VALUE



Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

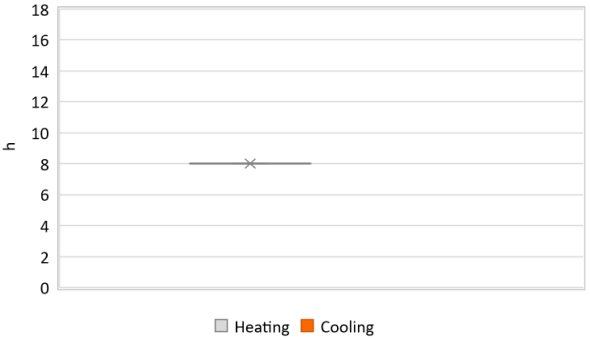
AIR EXCHANGE RATE

OCCUPANCY DENSITY



INTERNAL GAINS POWER DENSITY

DAILY OPERATING TIME



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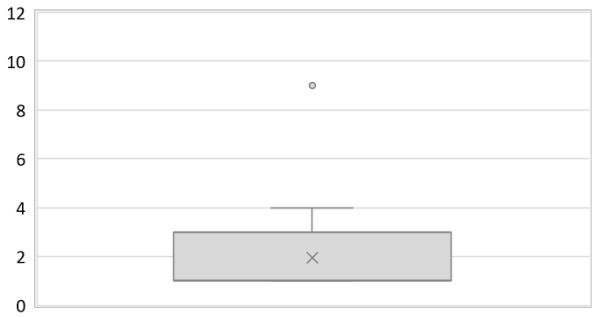
Building category:	Residential buildings – Apartments (in multifamily blocks)			RES_APPBLOCK_ 1991-2000_D_CAL
Period of construction:	1991-2000			
Climatic zone:	D	**Number of records:**	43	

ADDITIONAL DATA

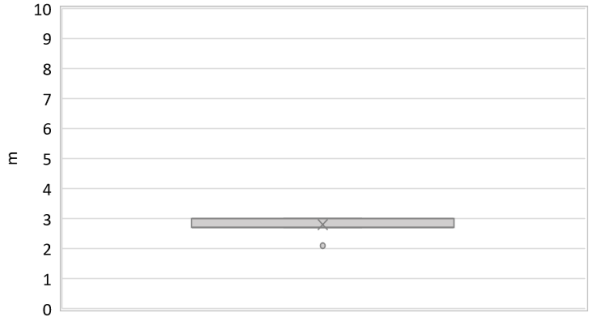
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
GEOMETRY: apartments	Inter-storey height	H_n	m	2.80	0.18	2.70	2.70	3.00
	Heated gross floor area	$A_{H;g}$	m^2	169.76	109.48	112.53	152.67	193.50
	Heated net floor area	$A_{H;n}$	m^2	142.36	90.99	94.12	127.67	161.65
	Heated gross volume	$V_{H;g}$	m^3	520.99	358.14	345.00	450.82	594.24
	Heated net volume	$V_{H;n}$	m^3	400.97	271.61	267.70	344.70	456.69
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	26.24	4.10	24.00	25.80	29.00
	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	-	-	-	-	-
	Temperature of DHW	θ_W	°C	40.00	0.00	40.00	40.00	40.00
	DHW system power *	$P_{W;gen}$	kW	-	-	-	-	-
	* These values refer to the apartment scale							

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

NUMBER OF FLOORS

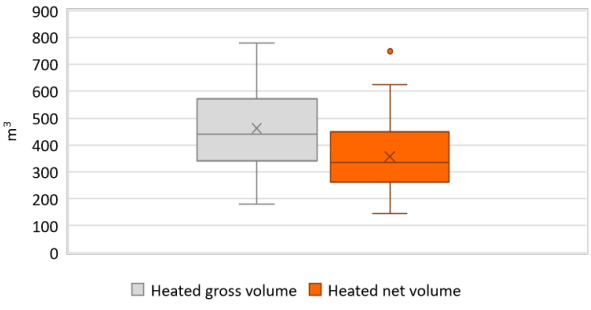


GROSS HEIGHT



AREA

VOLUME



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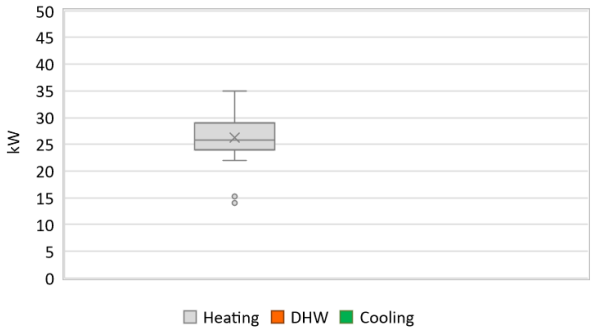
Period of construction:	1991-2000			
Climatic zone:	D	**Number of records:**	43	

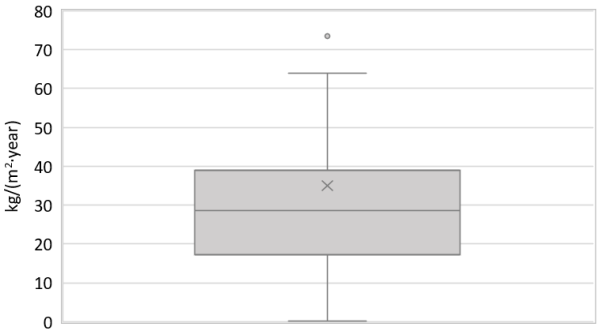
Additional data: other numerical variables that are not included in the archetype

DHW SUPPLY TEMPERATURE

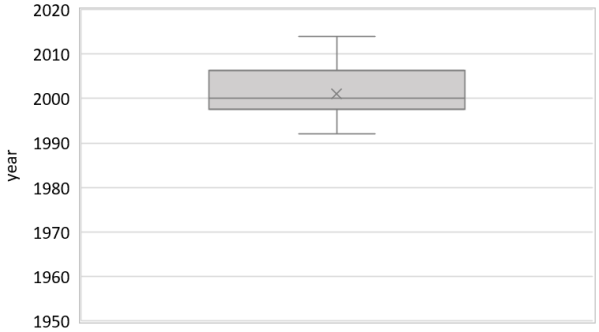
SYSTEM POWER



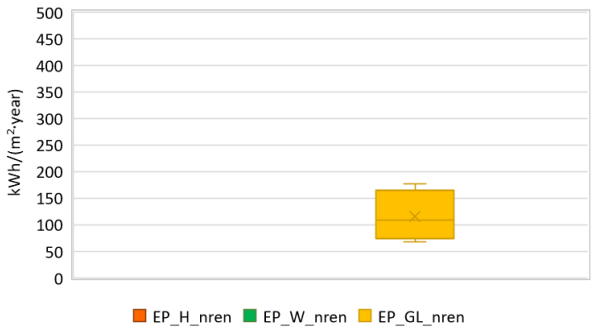
CO_2 EMISSION



HEATING SYSTEM INSTALLATION YEAR



NON-RENEWABLE PRIMARY ENERGY USE



RENEWABLE PRIMARY ENERGY USE