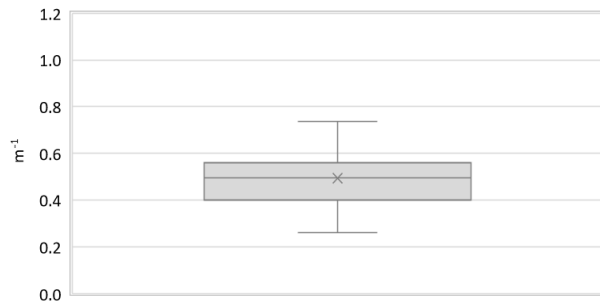


Region:	Trentino Alto Adige						Archetype code: RES_APPBLOCK_1971-1980_E_TN	
Building category:	Residential buildings – Apartments (in multifamily blocks)							
Period of construction:	1971-1980							
Climatic zone:	E	Number of records:				3585		
Description (the codes associated with walls and slabs refer to the structures described in UNI/TR 11552:2014): External walls: no data available Roof slabs: no data available							Data sources: APE (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 <sup>2</sup>	-	-	-	-	-
	Heated gross floor area	$A_{H,g}$	m <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	2113	1709	576	1220	3944
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	7571	6067	2120	4538	14910
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m <sup>-1</sup>	0.49	0.11	0.40	0.50	0.56
	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	$A_{wi}/A_{\text{use}}$	-	-	-	-	-	-
ENVELOPE	Roof type	-						
	U-value of the roof	$U_{fi;up}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	External walls type	-						
	U-value of the wall	$U_{wl}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	Slab on ground floor type	-						
	U-value of the floor	$U_{fi;lw}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
	Windows type	-						
	U-value of the windows	$U_W$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
Shading system type	-							
GAINS and VENTILATION	Occupancy density *	$O_C$	person/m <sup>2</sup>	UNI EN 16798-1 - Table A.19				
	Lighting power density *	$W_L$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Equipment power density *	$W_A$	W/m <sup>2</sup>	UNI EN 16798-1 - A.8.3				
	Type of ventilation	Natural: 100%						
	Air exchange rate *	$n$	h <sup>-1</sup>	0.30	-	0.30	0.30	0.30
THERMAL SYSTEMS	Heating system type	Centralized: 46%, Unknown: 30%, Autonomous: 24%						
	Heating generator	Boiler (unknown type): 70%, DHC: 11%, Traditional boiler: 10%, Condensing boiler: 8%, Air source heat pump: 1%,						
	Daily operating time of the heating system *	$t_H$	h	14	-	14	14	14
	Energy carrier	Natural gas: 96%, District heating: 2%, Electricity: 1%, Gas Oil: 1%						
	Heating emission sub-system	-						
	Cooling system type	Unknown: 99%, Air-cooled chiller: 1%						
	Daily operating time of the cooling system *	$t_C$	h	-	-	-	-	-
	Cooling emission sub-system	-						
	DHW system type	Centralized – coupled with heating: 40%, Autonomous – coupled with heating: 31%, Unknown: 15%, District heating: 10%, Autonomous - detached from heating: 4%						
	DHW generator	Natural gas boiler: 79%, Unknown: 16%, Electric heat pump: 4%, Electric boiler: 1%						
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

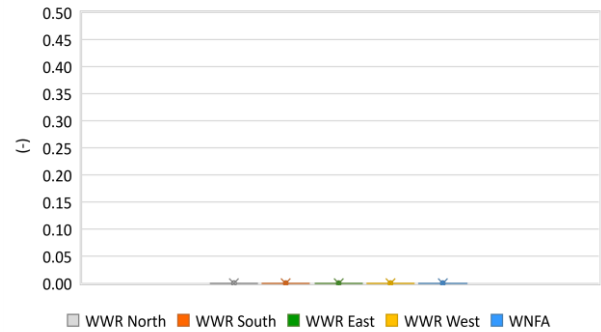
Region:	Trentino Alto Adige			Archetype code: RES_APPBLOCK_1971-1980_E_TN
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1971-1980			
Climatic zone:	E	Number of records:	3585	

### Numerical variables – GEOMETRY

**COMPACTNESS RATIO**

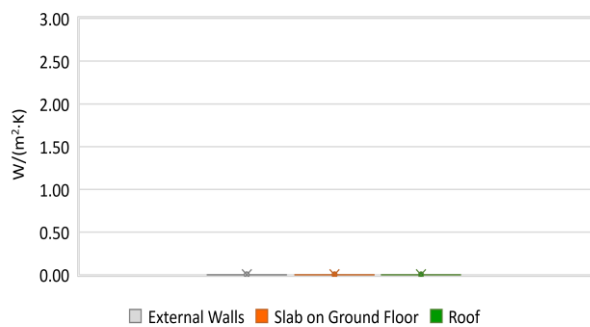


**WINDOWS TO WALL RATIO**



### Numerical variables – ENVELOPE

**OPAQUE BUILDING COMPONENTS U-VALUE**



**WINDOWS U-VALUE**

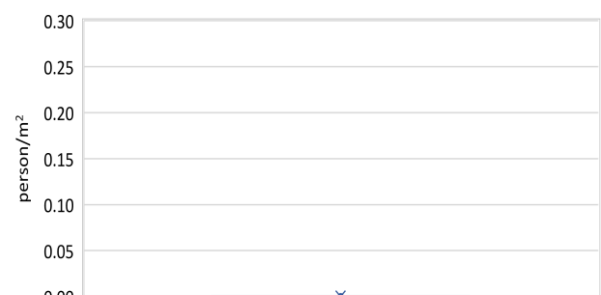


### Numerical variables – GAINS, VENTILATION and SYSTEMS USAGE

**AIR EXCHANGE RATE**



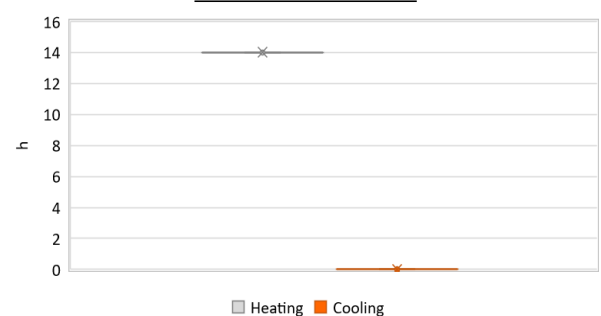
**OCCUPANCY DENSITY**



**INTERNAL GAINS POWER DENSITY**



**DAILY OPERATING TIME**

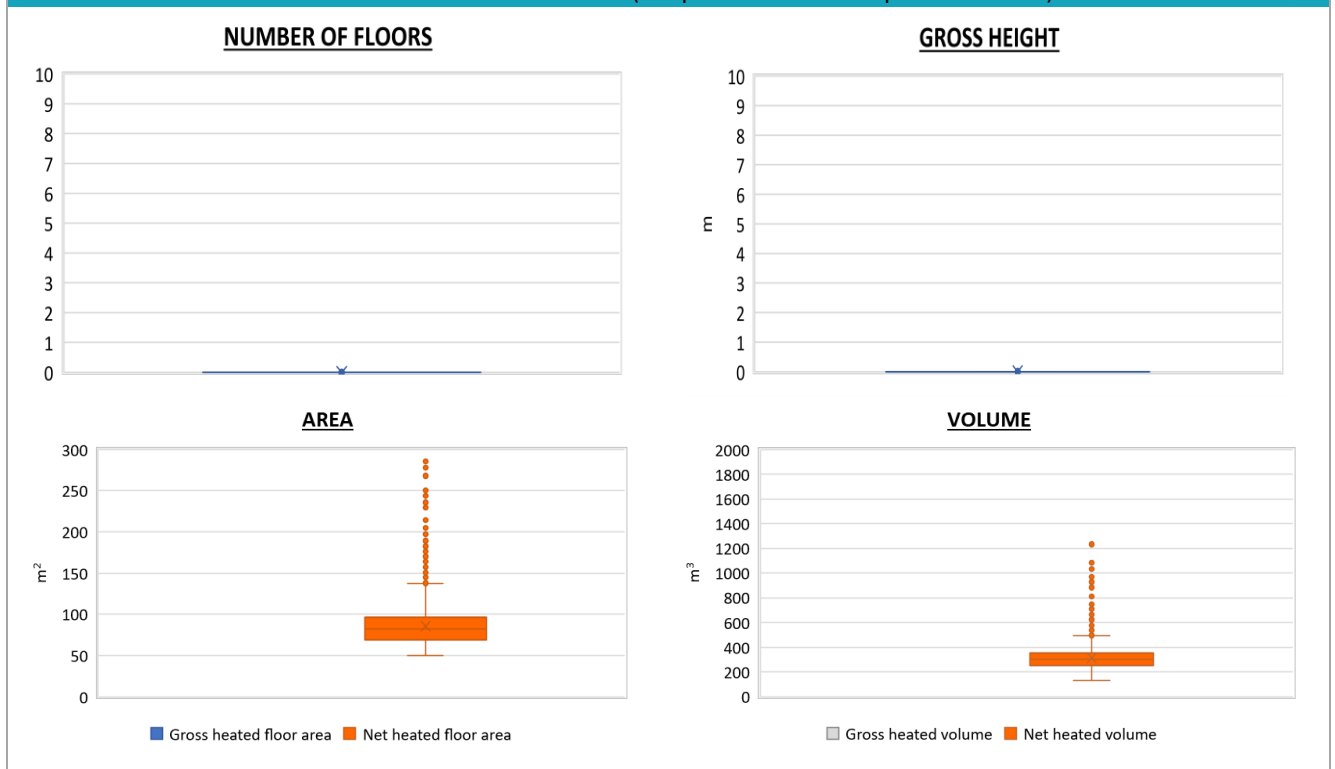


Region:	Trentino Alto Adige			Archetype code: RES_APPBLOCK_1971- 1980_E_TN
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1971-1980			
Climatic zone:	E	Number of records:	3585	

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 <sup>2</sup>	-	-	-	-	-
	Heated net floor area	$A_{H,n}$	m <sup>2</sup>	86	25	69	82	96
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	313	97	255	302	351
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	197	206	28	141	295
	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	8	17	3	4	5
	Temperature of DHW	$\vartheta_w$	°C	40	-	40	40	40
	DHW system power *	$P_{W,gen}$	kW	191	206	27	119	295

\* These values refer to the apartment scale

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



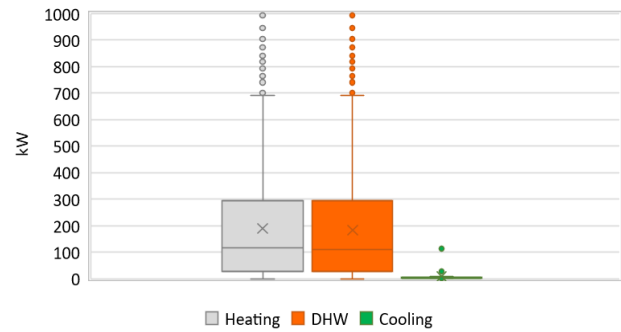
Region:	Trentino Alto Adige			Archetype code: RES_APPBLOCK_1971- 1980_E_TN
Building category:	Residential buildings – Apartments (in multifamily blocks)			
Period of construction:	1971-1980			
Climatic zone:	E	Number of records:	3585	

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

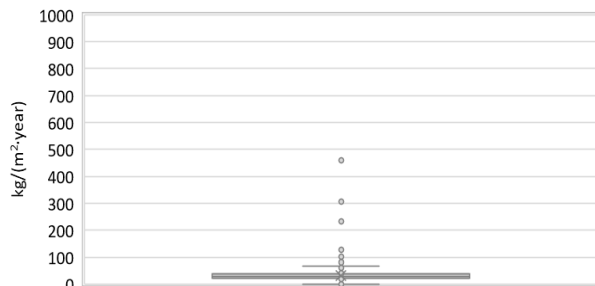
**DHW SUPPLY TEMPERATURE**



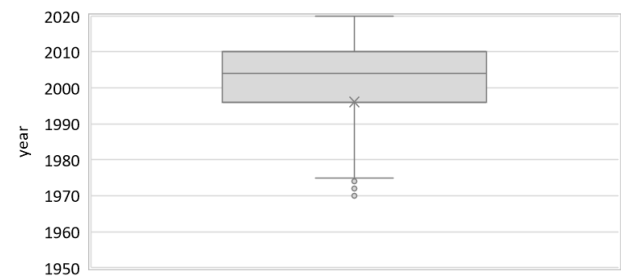
**SYSTEM POWER**



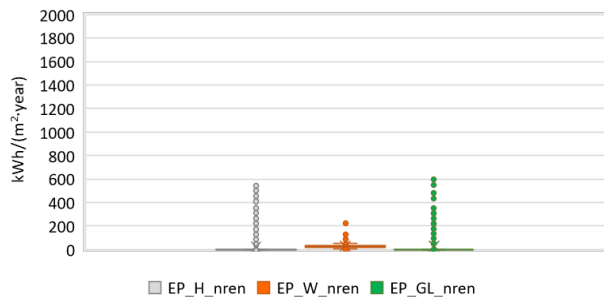
**CO<sub>2</sub> EMISSION**



**HEATING SYSTEM INSTALLATION YEAR**



**NON-RENEWABLE PRIMARY ENERGY USE**



**RENEWABLE PRIMARY ENERGY USE**

