

Region:	Trentino						Archetype code: OFF_ 1981-1990_F_TN	
Building category:	Office buildings							
Period of construction:	1981-1990							
Climatic zone:	F	Number of records:				135		
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: 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	$A_{\text{footprint}}$	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>	268	304	86	1000	298
	Heated gross volume	$V_{H,g}$	m <sup>3</sup>	-	-	-	-	-
	Heated net volume	$V_{H,n}$	m <sup>3</sup>	1064	1254	325	358	1170
	Compactness ratio	$A_{\text{env}}/V_{H,g}$	m <sup>-1</sup>	0.57	0.21	0.40	0.59	0.72
	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		$U_{f,up}$	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		$U_{f,lw}$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
Windows type		-						
U-value of the windows		$U_W$	W/(m <sup>2</sup> ·K)	-	-	-	-	-
GAINS and VENTILATION	Shading system type	-						
	Occupancy density *	$O_c$	person/m <sup>2</sup>	UNI EN 16798-1				
	Lighting power density *	$W_L$	W/m <sup>2</sup>	UNI EN 16798-1				
	Equipment power density *	$W_A$	W/m <sup>2</sup>	UNI EN 16798-1				
	Type of ventilation	Natural: 100%						
THERMAL SYSTEMS	Air exchange rate *	$n$	h <sup>-1</sup>	UNI EN 16798-1				
	Heating system type	Centralized: 44%; Unknown 34%; Autonomous: 22%						
	Heating generator	Boiler (unknown type): 92%; Heat exchanger of district heating/cooling: 4%; Unknown: 3%; Fireplace: 1%						
	Daily operating time of the heating system *	$t_H$	h	No limitation				
	Energy carrier	Natural Gas: 55%; Gas Oil: 26%; Solid biomass: 8%; LPG: 6%; District heating: 4%; Electricity: 1%						
	Heating emission sub-system	-						
	Cooling system type	Unknown: 91%; Air-cooled chiller: 8%; Water-cooled chiller: 1%						
	Daily operating time of the cooling system *	$t_c$	h	No limitation				
	Cooling emission sub-system	-						
	DHW system type	Autonomous – coupled with heating: 27%; Autonomous - detached from heating: 27%; Centralized – coupled with heating: 21%; Unknown: 19%; District heating: 6%						
	DHW generator	Natural gas boiler: 49%; Electric Heat Pump: 21%; Unknown: 15%; Electric boiler: 15%						
* These values were not available in the considered sources, and are thus derived from UNI EN Standards								

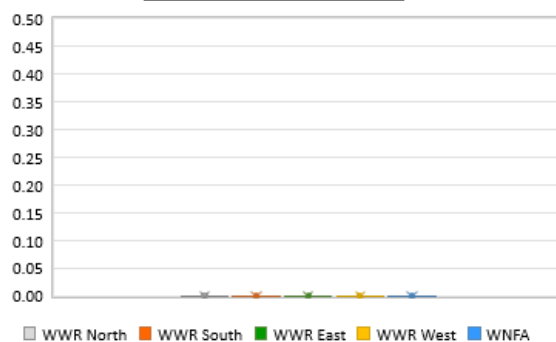
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### Numerical variables – GEOMETRY

**COMPACTNESS RATIO**

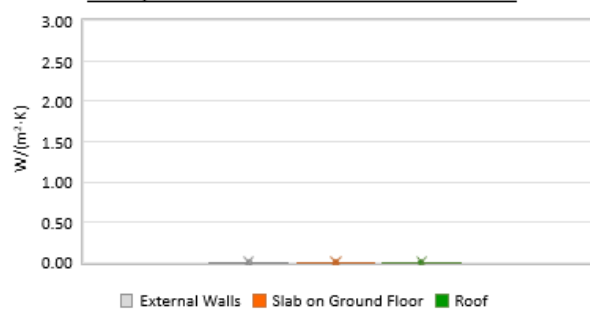


**WINDOWS TO WALL RATIO**

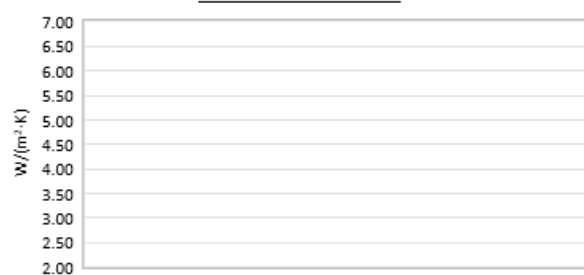


### Numerical variables – ENVELOPE

**OPAQUE BUILDING COMPONENTS U-VALUE**

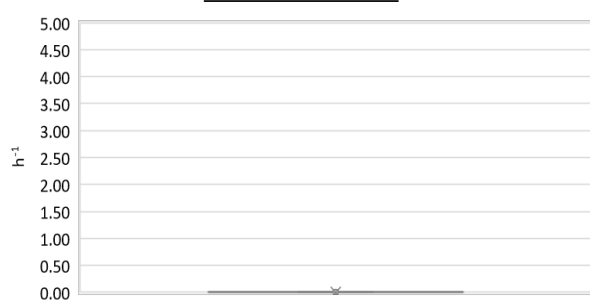


**WINDOWS U-VALUE**



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

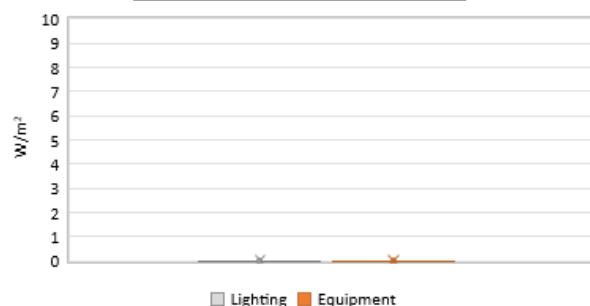
**AIR EXCHANGE RATE**



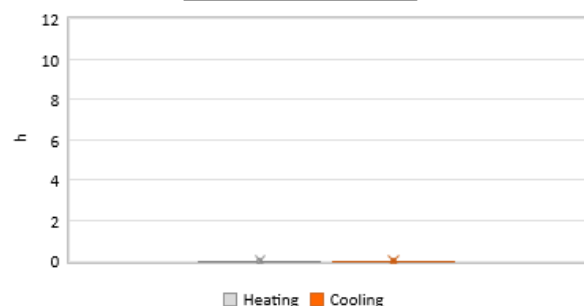
**OCCUPANCY DENSITY**



**INTERNAL GAINS POWER DENSITY**

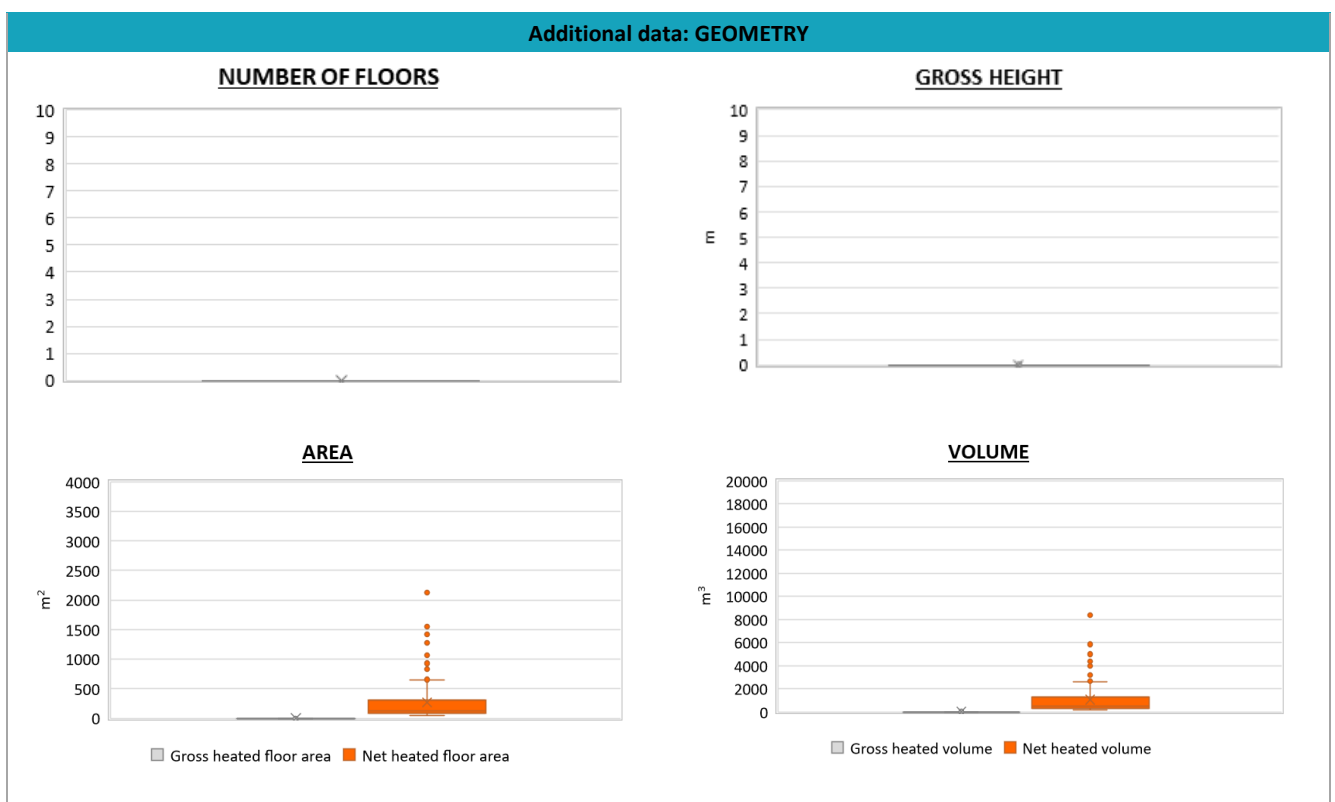


**DAILY OPERATING TIME**



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ADDITIONAL DATA								
	Data	Symbol	Unit of measure	Mean value	Standard deviation	Q1 (first quartile)	Median value	Q3 (third quartile)
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	79	105	27	57	109
	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	40	53	7	15	36
	Temperature of DHW	$\vartheta_W$	°C	-	-	-	-	-
	DHW system power	$P_{W,gen}$	kW	-	-	-	-	-



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

