

category:	Residential h								
e	Residential bu	uildings - Ap	artments (in m	ultifamily	y blocks)		RES_APPB	LOCK_1931-	
Period of construction: 1931-1940 Climatic zone: F		Number of records: 1185					 1940_F_PIE		
						,	EPC datab	ases (100%)	
		•							
	·								
Data		Symbol	Unit of	Mean	Standard	01 (first	Median	Q3 (thire	
Data		Symbol	measure	value	deviation	quartile)	value	quartile	
Number of floors		nf	-	-	-	-	-	-	
Gross height		Hg	m	-	-	-	-	-	
Footprint area		A _{footprint}	m²	-	-	-	-	-	
Heated gross floor area		A _{H;g}	m²	-	-	-	-	-	
Heated net floor	area	A _{H;n}	m²	-	-	-	-	-	
Heated gross vol	ume	V _{H;g}	m³	-	-	-	-	-	
Heated net volu	ne	V _{H;n}	m³	-	-	-	-	-	
Compactness rat	io	$A_{\rm env}/V_{\rm H;g}$	m ⁻¹	0.72	0.28	0.55	0.72	0.86	
WWR – North orientation		WWR _N	-	-	-	-	-	-	
Heated net floor area Heated gross volume Heated net volume Compactness ratio <i>WWR</i> – North orientation <i>WWR</i> – South orientation		WWRs	-	-	-	-	-	-	
		WWR _E	-	-	-	-	-	-	
WWR – West ori	entation	WWR _W	-	-	-	-	-	-	
Window to usefu	Il floor area			0.46	0.07	0.40	0.45	0.00	
ratio		A _{wi} /A _{use}	-	0.16	0.07	0.12	0.15	0.20	
Roof type					-				
U-value of the ro	of	U _{fl;up}	W/(m²·K)	-	-	-	-	-	
External walls ty	ре		Solid Brick	masonry:	85%; Hollow br	ick masonry: 11	%; Unknown: 4%	, , ,	
U-value of the w	all	U _{wl}	W/(m²·K)	-	-	-	-	-	
Slab on ground f	loor type			1	-	I		1	
U-value of the flo	oor	Ufl:lw	W/(m²⋅K)	-	-	-	-	-	
Windows type		,		1	-			1	
<i>U</i> -value of the w	indows	Uw	W/(m²·K)	3.23	1.24	2.33	3.09	4.32	
			,, ,	1	-	1			
		- Ωc person/m ² LINI EN 16798-1 - Table Δ 19							
			,						
		n	h-1	0.30			0.30	0.30	
				1		1		0.50	
		Autonomous: 85%; Centralized: 15%							
		t _H	h			No limitat	tion		
		Natural Gas: 75%; Solid biomass: 11%; LPG: 6%; Gas Oil: 4%; Electricity: 3%; District heating: 1%							
	n sub-system								
-									
		t _C	h	-	-	-	-	-	
• •					-	I			
		Autonomous, coupled with heating: 45%; Autonomous, detached from heating: 31%; Centralized, coupled with heating: 22%; Centralized, detached from heating: 2%							
DHW generator		•							
	Data Number of floors Gross height Footprint area Heated gross floor Heated gross vol Heated gross vol Heated gross vol Heated gross vol Heated net volur Compactness rat WWR – North or WWR – South or WWR – South or WWR – South or WURR – South or WUR – South or Wundow to usefuration Roof type U-value of the row Slab on ground f U-value of the floor Vindows type U-value of the floor Shading system t Occupancy densi Lighting power of Equipment power Type of ventilation Air exchange rat Heating system t Heating system t Daily operating t heating system t Cooling	Data Number of floors Gross height Footprint area Heated gross floor area Heated gross volume Heated net floor area Heated net volume Compactness ratio WWR – North orientation WWR – South orientation WWR – South orientation WWR – South orientation WUR – Vest orientation Window to useful floor area ratio Roof type U-value of the roof External walls type U-value of the floor Windows type U-value of the floor Windows type U-value of the windows Shading system type Occupancy density * Lighting power density * Equipment power density * Type of ventilation Air exchange rate * Heating system type Daily operating time of the heating system type Daily operating time of the heating system type Daily operating time of the heating system type Daily operating	Number of floorsnfGross height H_g Footprint area $A_{footprint}$ Heated gross floor area $A_{H;g}$ Heated net floor area $A_{H;n}$ Heated net volume $V_{H;g}$ Heated net volume $V_{H;g}$ WWR - North orientation WWR_N WWR - South orientation WWR_S WWR - Vest orientation WWR_W Window to useful floor area ratio A_{wi}/A_{use} Roof type U_{value} U-value of the roof $U_{fi;up}$ External walls type U_{valu} Slab on ground floor type U_{valu} Vindows type U_{value} Occupancy density * O_C Lighting power density * W_L Equipment power density * W_L Equipment power density * M_{a} Type of ventilation t_H Heating system type U_{a} Daily operating time of the heating system * n Heating emission sub-system t_H Energy carrierNaturalHeating emission sub-system t_C Doily operating time of the cooling system type t_C Daily operating time of the cooling system type t_C Daily operating time of the cooling system * t_C Daily operating time of the cooling system type t_C	DataSymbolUnit of measureNumber of floors n_f -Gross height H_g mFootprint area $A_{footprint}$ m^2 Heated gross floor area $A_{H_{LG}}$ m^2 Heated net floor area $A_{H_{I,II}$ m^2 Heated net floor area $A_{H_{I,II}$ m^3 Heated gross volume $V_{H_{I,II}$ m^3 Compactness ratio $A_{env}/V_{H_{I,II}$ m^3 Compactness ratio $A_{env}/V_{H_{I,II}$ m^{-1} WWR - North orientation WWR_N - WWR - South orientation WWR_N - WWR - South orientation WWR_N - WWR - Mest orientation WWR_N - WWR - West orientation WWR_N - $Wurd - West orientationWWR_N-Wurd - West orientationW_{WR_N}-Wurd - West orientationU_{value}W(m^2 \cdot K)Slab on ground floor typeU-value of the windowsU_wW(m^2 \cdot K)Shading system typeOccupancy densit$	DataSymbolUnit of measureMean valueNumber of floors n_f Gross height H_g m-Footprint area $A_{fcotprint}$ m^2 -Heated gross floor area $A_{H;g}$ m^2 -Heated net floor area $A_{H;g}$ m^3 -Heated net volume $V_{H;g}$ m^3 -Compactness ratio $A_{env}/V_{H;g}$ m^{-1} 0.72WWR – North orientation WWR_N WWR – South orientation WWR_S WWR – South orientation WWR_R WWR – Vest orientation WWR_R Window to useful floor area ratio A_{uv}/A_{use} -0.16Roof type-0.16U-value of the roof U_{f_{UUD} $W/(m^2 \cdot K)$ -Slab on ground floor typeU-value of the floor U_{f_{UUV} $W/(m^2 \cdot K)$ -Slab on ground floor typeU-value of the windows U_W $W/(m^2 \cdot K)$ -Shading system typeOccupancy density * O_C person/m²-U-value of the windows U_W $W/(m^2 \cdot K)$ -Shading system typeU-value of the windows U_W $W/(m^2 \cdot K)$ -Shading system typeDaily operating time of the eating system *n	DataSymbolUnit of measureMean valueStandard deviationNumber of floors n_f Gross height H_g mFootprint area $A_{togprint}$ m^2 Heated gross floor area A_{tig} m^2 Heated net floor area A_{tig} m^3 Heated net volume V_{tig} m^3 Compactness ratio $A_{em/}V_{tig}$ m^{-1} 0.720.28WWR - North orientation WWR_k WWR - South orientation WWR_k WWR - South orientation WWR_k Window to useful floor area ratio A_{wl}/A_{use} -0.160.07Roof typeU-value of the roof U_{R_1up} $W/(m^2 \cdot k)$ Slab on ground floor typeU-value of the floor U_{R_1w} $W/(m^2 \cdot k)$ Occupancy density * O_C person/m²U-value of the windows U_w $W/(m^2 \cdot k)$ 3.231.24Shading system typeOccupancy density * M_L W_L W/m^2 U-value of the windows U_w W/m^2 Shading system typeOccu	DataSymbolUnit of measureMean valueStandard deviationQ1 (first quartile)Number of floors n_r <td< td=""><td>$\begin{array}{ c c c c } \hline \begin{tabular}{ c c } \hline \begin{tabular}{ c c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$</td></td<>	$\begin{array}{ c c c c } \hline \begin{tabular}{ c c } \hline \begin{tabular}{ c c c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	







Region:	Piedmont	Archetype code:		
Building category:	Residential buildings - A	RES_APPBLOCK_1931-		
Period of construction:	1931-1940	1940_F_PIE		
Climatic zone:	F	Number of records:	1185	

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}	m²	-	-	-	-	-
	Heated net floor area	A _{H;n}	m²	74.7	46.5	45.5	66.1	91.1
	Heated gross volume	V _{H;g}	m ³	304.4	189.5	185.4	270.3	367.9
on U	Heated net volume	V _{H;n}	m ³	-	-	-	-	-
THERMAL SYSTEMS	Heating efficiency or COP	η _{H;gen} or COP _{H;gen}	-	This value has to be retrieved from suitable datasheets				
	Total heating power *	P _{H;gen}	kW	22.5	7.4	21.0	24.0	26.0
	Cooling efficiency or EER	η _{C;gen} or EER _{C;gen}	-	This value has to be retrieved from suitable datasheets				
	Total cooling power *	P _{C;gen}	kW	6.0	3.9	2.7	5.8	7.6
	Temperature of DHW	ϑw	°C	40.0	0.0	40.0	40.0	40.0
Ŧ	DHW system power *	P _{W;gen}	kW	17.1	11.5	1.5	23.3	24.8
	* These values refer to the apartment scale							

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





