

Project data

Calculation

	Project	Reference
Calculation type:	Main calculation	Data from measurements
Evaluation type:	New building	-

Building information

	Project	Reference
Project name:	Condominio Infinity	
Street:	Via Anzio 22/6	
Postcode/city/country:	20037	
Building type:	New - ICF - 6 appartamenti	
Year of Construction:	2010	

Owner/client information

	Project	Reference
Home Owner/client:	Fabio Baldo	
Email/phone:	f.baldo@aakhon.it	Tel: +39 02 91

Architect information

	Project	Reference
Architect:	Arch. Fabio Baldo	
Company:	AAKHON - www.aakhon.it	
Email/phone:	f.baldo@aakhon.it	Tel: +39 02 91

Mechanical engineer information

	Project	Reference
Engineer:	Arch. Fabio Baldo	
Company:	AAKHON - www.aakhon.it	
Email/phone:	f.baldo@aakhon.it	Tel: +39 02 91

Certification

	Project	Reference
Verified by:	Guenther Gantioler	

Active House tool

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1.0 Comfort

Room definition

Room type	Area	Occupancy rate
Living room 1	60.7 m ²	0.149
Living room 2	60.7 m ²	0.149

1.1 Daylight

Daylight factor

Room type	Project	Reference
Living room 1	2.6	0
Living room 2	1.5	0

Daylight score:

	Project	Reference
Validated simulation program:	yes	yes
Daylight factor score:	3.1	Out of AH category

1.2 Thermal environment

Project

Room type	Max operative temp. score	Min operative temp. Score
Living room 1	1.0	1.0
Living room 2	1.0	1.0

Reference

Room type	Max operative temp. score	Min operative temp. Score
Living room 1	Out of AH category	1.0
Living room 2	Out of AH category	1.0

Thermal environment score

	Project	Reference
Dynamic simulation:	yes	yes
Project stage:	Planning (use of Active House Tool)	Planning (use of Active House Tool)
Thermal environment category:	best level	Out of AH category
Thermal environment score:	1.0	Out of AH category

1.3 Indoor air quality

Category, overall

Room type	Project	Reference
Living room 1	1.0	Out of AH category
Living room 2	1.0	Out of AH category

Air quality score

	Project	Reference
Project stage:	Planning (use of Active House Tool)	Planning (use of Active House Tool)
CO2-concentration above outdoor:	≤ 500 ppm	> 1200 ppm
Indoor air quality score:	1.0	Out of AH category

2.0 Energy, Project

Space heating

Yearly energy demand	Energy demand	PE factor/COP (Heat pump)	PE demand
District heating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Boiler (oil, gas, wood pillar etc.):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electric heating:	0.7 kWh/m ²	2.4	1.7 kWh/m ²
Heat pump (space heating):	2.1 kWh/m ²	4.7	-
Total:	2.8 kWh/m²	-	1.7 kWh/m²

Yearly electricity consumption	Energy demand	PE factor	PE demand
Heat pump:	0.4 kWh/m ²	0.0	0.0 kWh/m ²
Pumps:	0.2 kWh/m ²	2.4	0.5 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.2 kWh/m²	-	0.5 kWh/m²

Domestic hot water

Yearly energy demand	Energy demand	PE factor/COP (Heat pump)	PE demand
District heating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Boiler (oil, gas, wood pillar etc.):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electric heating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Heat pump (space heating):	10.0 kWh/m ²	3.7	-
Total:	10.0 kWh/m²	-	0.0 kWh/m²

Yearly electricity consumption	Energy demand	PE factor	PE demand
Heat pump:	2.7 kWh/m ²	2.4	6.5 kWh/m ²
Pumps:	1.1 kWh/m ²	2.4	2.6 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	1.1 kWh/m²	-	9.1 kWh/m²

Mechanical ventilation

Yearly electricity consumption	Energy demand	PE factor	PE demand
Fans:	2.3 kWh/m ²	2.4	5.5 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	2.3 kWh/m²	-	5.5 kWh/m²

Cooling

Yearly electricity consumption	Energy demand	PE factor	PE demand
Colling unit:	2.1 kWh/m ²	2.4	5.0 kWh/m ²
Overheating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Others:	0.2 kWh/m ²	2.4	0.5 kWh/m ²
Total:	2.3 kWh/m²	-	5.5 kWh/m²

Control systems

Yearly electricity consumption	Energy demand	PE factor	PE demand
BMS, natural ventilation etc.:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Others:	0.3 kWh/m ²	2.4	0.7 kWh/m ²
Total:	0.3 kWh/m²	-	0.7 kWh/m²

2.0 Energy, Project

Lighting

Yearly electricity consumption	Energy demand	PE factor	PE demand
Total:	4.5 kWh/m ²	2.4	10.8 kWh/m ²

Electricity produced by renewable energy

Yearly electricity production	Energy demand	PE factor	PE demand
PV Cells (on site):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Windmills and others (on site):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Off-site renewable production:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electricity grid:	10.1 kWh/m ²	2.4	24.4 kWh/m ²
Total:	10.1 kWh/m ²	-	24.4 kWh/m ²

Heat produced by renewable energy

Yearly heat production	Energy demand	PE factor	PE demand
Solar panel (space heating):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Solar panel (domestic hot water):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
District heating (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Boiler (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electric heating (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Heat Pump (Renewable part):	8.9 kWh/m ²	0.0	0.0 kWh/m ²
Biofuels:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Biogas:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	8.9 kWh/m ²	-	0.0 kWh/m ²

General information

Heated floor area:	686 m ²
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2.1 Energy demand score

Space heating:	3.0 kWh/m ²
Domestic hot water:	11.1 kWh/m ²
Mechanical ventilation:	2.3 kWh/m ²
Cooling:	2.3 kWh/m ²
Control systems:	0.3 kWh/m ²
Lighting:	4.5 kWh/m ²
Total:	23.5 kWh/m ²

Energy demand score: 1.0

2.2 Energy supply score

Electricity produced by renewable energy:	10.1 kWh/m ²
Heat produced by renewable energy:	8.9 kWh/m ²
Total:	19.0 kWh/m ²

Energy supply score: 1.8

2.3 Primary energy performance score

Total:	17.7 kWh/m ²
PE performance score:	3.2

2.0 Energy, Reference

Space heating

Yearly energy demand	Energy demand	PE factor/COP (Heat pump)	PE demand
District heating:	0.0 kWh/m ²	1.0	0.0 kWh/m ²
Boiler (oil, gas, wood pillar etc.):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electric heating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Heat pump (space heating):	0.0 kWh/m ²	0.0	-
Total:	0.0 kWh/m²	-	0.0 kWh/m²

Yearly electricity consumption	Energy demand	PE factor	PE demand
Heat pump:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Pumps:	0.0 kWh/m ²	2.5	0.0 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m²	-	0.0 kWh/m²

Domestic hot water

Yearly energy demand	Energy demand	PE factor/COP (Heat pump)	PE demand
District heating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Boiler (oil, gas, wood pillar etc.):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electric heating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Heat pump (space heating):	0.0 kWh/m ²	0.0	-
Total:	0.0 kWh/m²	-	0.0 kWh/m²

Yearly electricity consumption	Energy demand	PE factor	PE demand
Heat pump:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Pumps:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m²	-	0.0 kWh/m²

Mechanical ventilation

Yearly electricity consumption	Energy demand	PE factor	PE demand
Fans:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m²	-	0.0 kWh/m²

Cooling

Yearly electricity consumption	Energy demand	PE factor	PE demand
Colling unit:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Overheating:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m²	-	0.0 kWh/m²

Control systems

Yearly electricity consumption	Energy demand	PE factor	PE demand
BMS, natural ventilation etc.:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Others:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m²	-	0.0 kWh/m²

2.0 Energy, Reference

Lighting

Yearly electricity consumption	Energy demand	PE factor	PE demand
Total:	0.0 kWh/m ²	0.0	0.0 kWh/m ²

Electricity produced by renewable energy

Yearly electricity production	Energy demand	PE factor	PE demand
PV Cells (on site):	0.0 kWh/m ²	2.5	0.0 kWh/m ²
Windmills and others (on site):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Off-site renewable production:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electricity grid:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m ²	-	0.0 kWh/m ²

Heat produced by renewable energy

Yearly heat production	Energy demand	PE factor	PE demand
Solar panel (space heating):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Solar panel (domestic hot water):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
District heating (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Boiler (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Electric heating (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Heat Pump (Renewable part):	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Biofuels:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Biogas:	0.0 kWh/m ²	0.0	0.0 kWh/m ²
Total:	0.0 kWh/m ²	-	0.0 kWh/m ²

General information

Heated floor area:	m ²
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2.1 Energy demand score

Space heating:	0.0 kWh/m ²
Domestic hot water:	0.0 kWh/m ²
Mechanical ventilation:	0.0 kWh/m ²
Cooling:	0.0 kWh/m ²
Control systems:	0.0 kWh/m ²
Lighting:	0.0 kWh/m ²
Total:	0.0 kWh/m ²
Energy demand score:	Out of AH category

2.2 Energy supply score

Electricity produced by renewable energy:	0.0 kWh/m ²
Heat produced by renewable energy:	0.0 kWh/m ²
Total:	0.0 kWh/m ²
Energy supply score:	Out of AH category

2.3 Primary energy performance score

Total:	0.0 kWh/m ²
PE performance score:	Out of AH category

3.0 Environment, Project

3.1 Environmental loads score

Active House LCA tool:	yes	
Consumption type	Yearly consumption	Score
PE consumption:	<150 kWh/m ²	3.0
GWP:	<10 kg CO ₂ -eq/m ²	2.0
ODP:	<5.30E-07 kg R11-eq./m ²	2.0
POCP:	<0.0025 kg C ₂ H ₄ -eq./m ²	1.0
AP:	<0.075 kg SO ₂ -eq./m ²	2.0
EP:	<0.0040 kg PO ₄ -eq./m ²	1.0
Environmental loading score:	-	1.8

3.2 Freshwater consumption score

Minimisation of freshwater consumption:	59 %
Freshwater consumption score	1.0

3.3 Sustainable construction score

Category	Value	Score
Recyclabel content:	98 %	1.0
Certified wood (FSC, PEFC):	100 %	1.0
Verified EPDs:	0 %	4.0
Sustainable construction score:		2.0

3.0 Environment, Reference

3.1 Environmental loads score

Active House LCA tool:	yes	
Consumption type	Yearly consumption	Score
PE consumption:	>200 kWh/m ²	Out of AH category
GWP:	>50 kg CO ₂ -eq/m ²	Out of AH category
ODP:	>6.70E-06 kg R11-eq./m ²	Out of AH category
POCP:	>0.0085 kg C ₂ H ₄ -eq./m ²	Out of AH category
AP:	>0.125 kg SO ₂ -eq./m ²	Out of AH category
EP:	>0.0105 kg PO ₄ -eq./m ²	Out of AH category
Environmental loading score:	-	Out of AH category

3.2 Freshwater consumption score

Minimisation of freshwater consumption:	0 %
Freshwater consumption score	Out of AH category

3.3 Sustainable construction score

Category	Value	Score
Recyclabel content:	0 %	Out of AH category
Certified wood (FSC, PEFC):	0 %	Out of AH category
Verified EPDs:	0 %	4.0
Sustainable construction score:		Out of AH category

Results

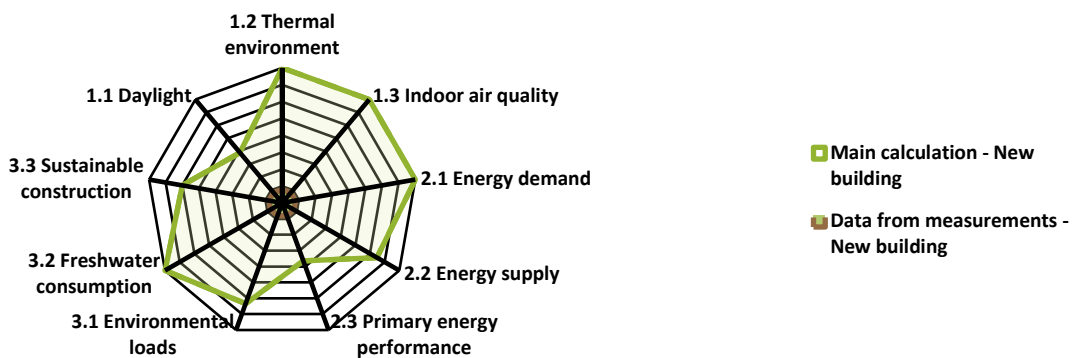
Project

Comfort	Value	Category
1.1 Daylight:	2.1 %	3.1
1.2 Thermal environment:	best level	1.0
1.3 Indoor air quality:	≤ 500 ppm	1.0
Classification		
Energy	Value	Category
2.1 Energy demand:	23.5 kWh/m ²	1.0
2.2 Energy supply:	19.0 kWh/m ²	1.8
2.3 Primary energy:	17.7 kWh/m ²	3.2
Classification		
Environment	Value	Category
3.1 Environmental loads:	Better level	1.8
3.2 Freshwater:	59 % savings	1.0
3.3 Sustainable construction:	Best level	2.0
Classification		

Reference

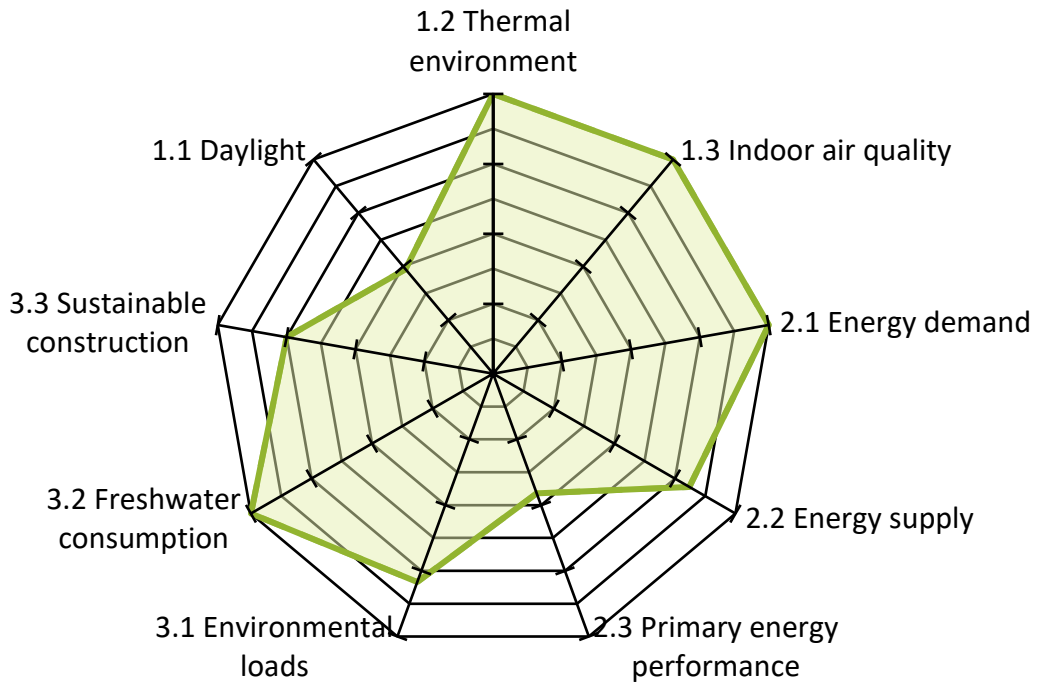
Comfort	Value	Category
1.1 Daylight:	0.0 %	-
1.2 Thermal environment:	Out of AH category	-
1.3 Indoor air quality:	> 1200 ppm	-
Classification		
Energy	Value	Category
2.1 Energy demand:	0.0 kWh/m ²	-
2.2 Energy supply:	0.0 kWh/m ²	-
2.3 Primary energy:	0.0 kWh/m ²	-
Classification		
Environment	Value	Category
3.1 Environmental loads:	Lowest level	-
3.2 Freshwater:	0 % savings	-
3.3 Sustainable construction:	Lowest level	-
Classification		

Radar



Radar

Project



Reference

