

Passive House design

This new development is part of Rationel's latest initiative – to aid architects and specifiers make the most out of Passive House design for the future of UK housing.

The new concept makes the most of the sunlight and heat, to bring benefits to the inside of the house.



WINDOWS WITH VISION

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Rational AURAPLUS®

- The window concept of the future

An active ingredient



Rational AURAPLUS® is a new and ground breaking window and door concept where energy, embracing daylight and quality design unite. Rational combine the strict energy demands of the future with sustainability and functionality.

The new energy saving window and door concept is a result of many years of research and development, and is an active part of keeping Rational at the forefront of providing windows with an exceptional energy performance. The new window concept saves energy to help care for the environment, and supports a healthy indoor climate.



Climate adjustable with solar shading, night insulation and natural ventilation



Next generation

The Rationel AURAPLUS design is slim, elegant and creates a stylish overall architectural expression for both renovation and new builds. The narrow construction of the new timber /aluminium composite window ensures maximum light transmittance into the home.

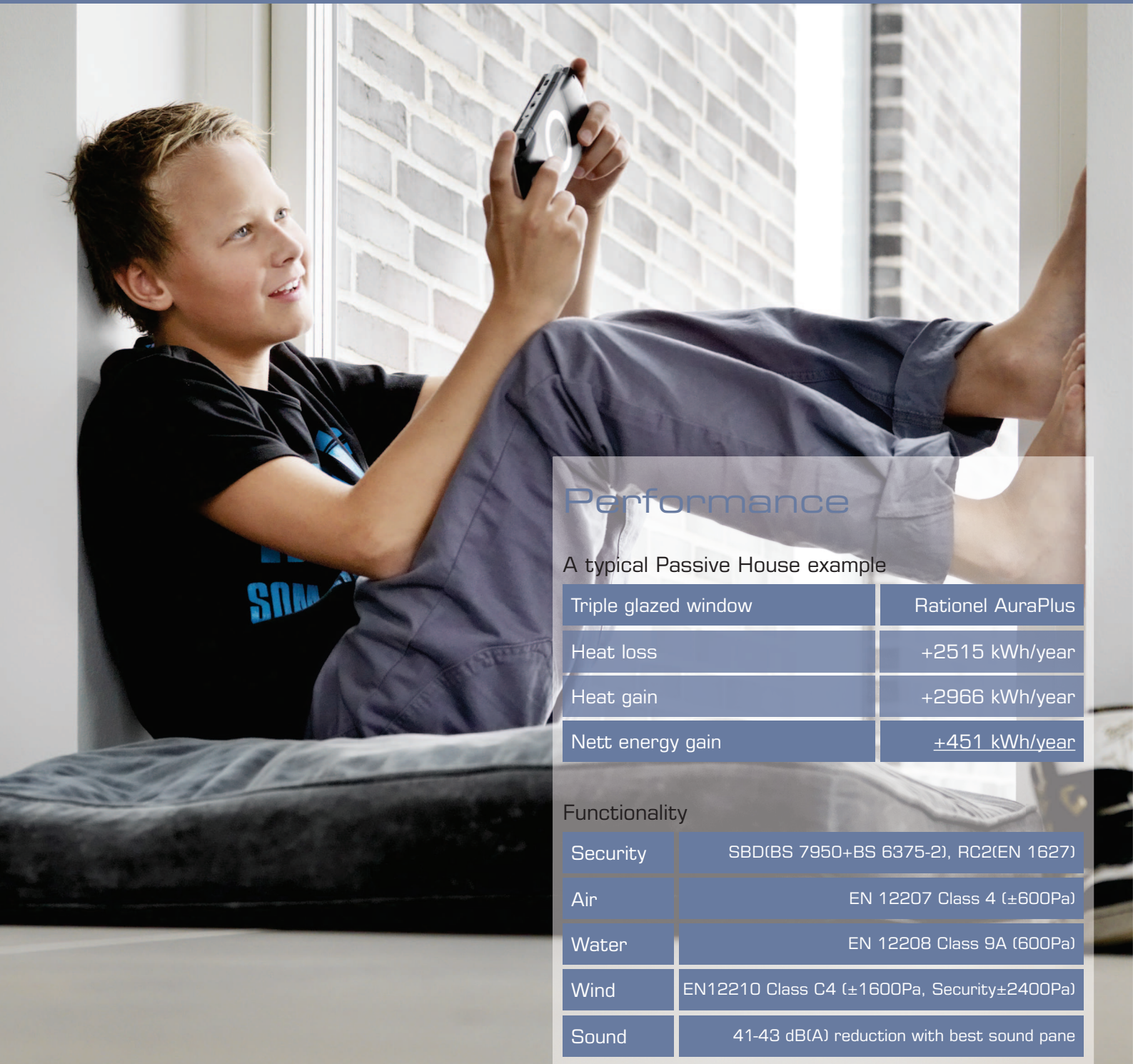
The above visualization is an example of a window configuration that enables natural ventilation and solar shading at the same time. Rationel AURAPLUS comes in various configurations and opening functions.

- 1 Solar energy - daylight and energy gain
- 2 Natural ventilation
- 3 External sunshading
- 4 Insulation
- 5 Active window
- 6 Lining
- 7 Night insulation
- 8 IO OS - remote control system





Rational AURAPLUS™ - The window concept of the future



Performance

A typical Passive House example

| | |
|----------------------|-------------------|
| Triple glazed window | Rational AuraPlus |
| Heat loss | +2515 kWh/year |
| Heat gain | +2966 kWh/year |
| Nett energy gain | +451 kWh/year |

Functionality

| | |
|----------|---|
| Security | SBD(BS 7950+BS 6375-2), RC2(EN 1627) |
| Air | EN 12207 Class 4 (±600Pa) |
| Water | EN 12208 Class 9A (600Pa) |
| Wind | EN12210 Class C4 (±1600Pa, Security±2400Pa) |
| Sound | 41-43 dB(A) reduction with best sound pane |