

Hemera

External Roller Shading



Control

- Solar Gain
- Light Level
- Screen Glare
- Visual Perception
- Thermal Comfort

Function

- Retractable
- Automatic/Manual
- Durable
- Proven Technology

Description

Hemera external roller blinds are an effective method of reducing solar gain and when used with a mesh fabric allow outward vision and control of good light levels. The blind has a compact aluminium top box and neat side guides or cables that retain the weighted bottom bar.

Hemera 103 has an aluminium top box with a rounded front profile, and for Hemera 120 it is a square section. An aluminium side guide or cable restrains the bottom rail or a restrained fabric version holds the cloth in the guides.

They can be manually operated from within the building with a cranked rod or for ease and convenience Hemera can be motorised with a wall or hand held switch. For optimum energy efficiency they can be automatically controlled and have links to a Building or Home Management System.

Solar gain reduction, glare control, natural ventilation and good light levels all in one attractive solution.

Energy Saving

The lowest cost energy is the energy that you do not need so preventing overheating and the need for energy use for cooling can be more effective than making plant more efficient. Hemera external shading does that, reducing the load from solar gain by up to 89%, a significant cost saving. Stopping the gain before it reaches the glass is more energy efficient than paying to remove it.

Sustainable Shading

Unlike most building components dynamic external shading saves a multiple in CO2 emissions of those created throughout its lifecycle.

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G and U values

We need a good U value to keep heat in during winter but we also need a good G_{tot} figure. G_{tot} is the measure of the total energy passing through a window when exposed to solar radiation, that is, the heat gains passing the combination of blind and glass (In the same way that U value is a measure of heat loss)

An Example

Hemera blinds with a silver Soltis mesh material have a G_{tot} of 0.11 with Low E double glazing, that is 89% heat rejection. The Soltis mesh fabric gives control of heat, light and glare and as well as a clear view out, thermal and visual comfort for the occupant, an effective yet attractive solution.



Passive House and Low Energy Shading Solutions

Harvesting winter heat gains with large south facing glazing is an important consideration for minimising heating costs. But this and insulating the structure can create overheating problems even in early spring and autumn if the glazing is not insulated to prevent those gains.

Dynamic shading – that is moveable blinds - is the insulation of the element that is the least protected, the glass.



Double Skin Facades

Dynamic external screening is not the solution for tall commercial buildings but with a double screen façade (DSF) and clear glass on the outer pane the G_{tot} figure would be almost as good as that for external shading. The blind is still exposed to the elements so needs to be external quality.

DSF with shading enables full height uninterrupted glazing and the shading ensures Part L Building Regulation compliance.