



SOLUTIONS FOR BIOCLIMATIC FAÇADES



Hospitality,
improve building comfort
and economic efficiency





The luxury hospitality sector is constantly required to meet new demands and new challenges. Its buildings should be able to express the originality of an exclusive offer, provide increasingly personalized services, propose innovative and original concepts but also comply with new environmental legislation and manage costs.

New requirements for hospitality buildings

Whether a major international chain, a small charming hotel or multi-purpose resort... all these buildings now need to embody a new service concept.

- > **Thermal and visual comfort** which, together with protection of privacy, actively contributes to customer well-being.
- > Varied atmospheres that allow everyone to enjoy the **comfort** they seek at all times.

- > Prestige guaranteed by **value-added** features.
- > Buildings with **high energy performance** reduce the need for air-conditioning and heating, which means lower consumption in terms of energy and natural resources.
- > A **rapid return on investment** as a result of energy savings and reduced maintenance costs.





Somfy solutions for your projects

Somfy has developed intelligent solutions for the operation of building openings and sun protection devices. These systems contribute to the prestige and value of the building. They improve comfort for occupants while also reducing energy costs.

In this way, **Somfy contributes to the development of bioclimatic façades** for all types of buildings, regardless of function or architecture.

➤ Bioclimatic façades

- **The façade** is the building's envelope, and acts as the interface between interior and exterior, and between the natural and built environments.
- **Inside**, conditions must remain as stable and as comfortable as possible for all occupants, based on their activities, needs and preferences.
- **Outside**, climate conditions vary according to the seasons, the weather and changes in daylight hours.
- The bioclimatic façade is a **living membrane** that continuously adapts to changes in the weather, and to occupants' changing needs.

- 1 / ARMANI HOTEL**
DUBAI, UNITED ARAB EMIRATES
 Client: Turner Int'l
 Architect: Skidmore, Owings & Merrill (SOM)
 Interior designer: Wilson Associates - Armani Hotel Collection
 Date: 2009

- 2 / ACICO JAL HOTEL**
DUBAI, UNITED ARAB EMIRATES
 Client: Acico
 Architect: Bothe Richter Teherani (BRT)
 Date: 2010

- 3 / TAJ HOTEL**
MUMBAI, INDIA
 Client: Taj Hotel Group
 Architect: Lissoni Associati, Milan
 BAMO, San Francisco - LTW Design Work, Kuala Lumpur - James Park Associates, Singapore
 Date: 2010

- 4 / MGM CITY CENTER'S VDARA TOWERS**
LAS VEGAS, USA
 Client: MGM Resorts International & Dubai World
 Architect: Rafael Vinoly Architects of New York / Gensler / HKS
 Date: 2009

- 5 / W DOHA**
DOHA, QATAR
 Client: Medgulf Construction Co. W.L.L.
 Multiplex Constructions
 Date: 2009



3



4



5



Providing new services

“In our 300 rooms, motorized curtains produce savings on maintenance and cleaning, operational costs - due to remote control - and personnel (less time spent in the room), not forgetting the look of the place as they require less manual intervention.” *(Hotel chain development manager)*

Improve thermal and visual comfort

- In rooms, reception or meeting areas, keeping temperature at a constant level and controlling natural light are key factors in perceived comfort.
- With Somfy control units and devices, it is possible to:
 - > automate curtains to keep a cool interior,
 - > filter natural light to rest or work in the room,
 - > black out completely (night blackout curtain).

Offer more privacy and new aesthetic atmospheres

- Far removed from old-fashioned decoration, the hotel is now a "living organism", sparking off new emotions. Integral and invisible components of the design, Somfy solutions give everyone the possibility of protecting privacy, creating new atmospheres and designing the hotel's living areas:
 - > perfectly protecting private space by controlling motorized blinds and/or curtains,
 - > changing a room's atmosphere by changing the angle of slats on Venetian blinds,
 - > partitioning off a room by opening and closing interior curtains...

Offer personalized services

- Your clients are unique, and as such their development needs are also unique.
- With automated and remote controlled solutions, everyone can take advantage of the benefits of technology, in complete freedom. Occupants live at their own pace, they adapt the hotel's structure to their desires through simple control.

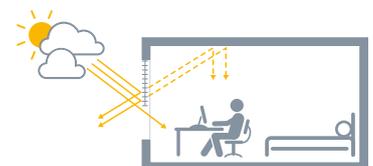
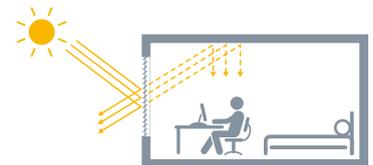
Thermal and visual comfort



Manage locally by occupant via a remote control



Automated blinds



Somfy's system rise or lower blinds automatically, so that occupant benefit from a pleasant indoor temperature



Improving the building's energy performance

“Electricity use accounts for 60-70 % of the utility costs of a typical hotel. Energy-efficient lighting can reduce electricity use up to 75 %.” (Source California Hotel & Lodging Association)

Save energy

- Somfy offers Dynamic Insulation™ solutions*, so that you no longer have to choose between comfort offered to customers and energy savings.
- The sensors and automatic devices used in Somfy solutions reduce energy consumption:
 - > by prioritizing the use of natural light,
 - > by reducing solar gains in the summer,
 - > by adapting building openings to actual occupancy periods (tourist season, seminar times, etc.).

Make the most of your investments

- Ensure profitability is a major requirement for the luxury hospitality sector. Buildings should be designed and built to reduce their operating cost and lengthen their lifespan.
- Somfy's centralized automation solutions are easy to integrate and operate, and help reduce running costs:
 - > by limiting energy consumption with saving of up to 10% on heating in winter and indoor cooling gains of up to 9°C in summer,
 - > by protecting external blinds from bad weather,
 - > by reducing manual intervention on curtains and sun protections, that extend their lifespans,
 - > by reducing the number of manual operation required and therefore also room service's running costs.

Extend buildings' lifespans

- The high-quality design and manufacture of Somfy solutions mean that buildings fitted with these solutions are assured optimum sustainability:
 - > the bioclimatic façades enable architectural creativity that gives the building all its value,
 - > automatic devices perfectly align sun protections to guarantee the façade's aesthetic appeal,
 - > centralization systems can be easily adapted to changes in activities or in energy regulations.
 - > the solutions are easily integrated into renovation projects (meeting and conference rooms, etc.).

*Thanks to Dynamic Insulation™ by Somfy, sun protection devices react automatically to outdoor climate conditions in order to reduce energy consumption and enable occupants to gain maximum benefit from the sun's natural heat.

Energy savings with automated sun protection devices

According to simulation tool created by Lund University in Sweden, an investment of 1% to 2% of the total cost of the building results in energy savings of 20% to 40% (see table below).

LUND UNIVERSITY	Electricity consumption (annual)	Cooling load Reduction (in Watt)	Total savings on consumption (annual)
BARCELONA (Spain)	reduced by 22.6% (1446 kWh compare 2006 kWh)	reduced by 22.6% (1884 W compare 2435 W)	at a price of € 0,16 / kWh : € 89,6
LOS ANGELES (USA)	reduced by 25.9% (1594 kWh compare 2151 kWh)	reduced by 24.1% (1678 W compare 2212 W)	at a price of US\$ 0.11 / kWh : US\$ 61
DUBAI (United Arab Emirates)	reduced by 14.7% (3038 kWh compare 3560 kWh)	reduced by 21.2% (2124 W compare 2694 W)	at a price of AED 0,3 / kWh : AED 156,6
SHANGAI (China)	reduced by 33% (1220 kWh compare 1830 kWh)	reduced by 21% (1876 W compare 2373 W)	at a price of Yuan 0,65 / kWh : Yuan 396,5



LEED CERTIFICATION

Somfy solutions can contribute up to 20% obtaining LEED certification (approximately 20 out of 110 points and 10 criteria). They are also conducive to achieving the higher classification levels (Silver, Gold or Platinum). Somfy's responsible, economical and environmentally friendly solutions are often sought for use in LEED buildings.

Simulation conditions: hotel room measuring 39.5 m², with a 6.2 m² window (double glazing, U: 2.88 W/m²Kg: 0.77), white PVC sun protection awning and comparison with automatic sun protection or not, depending on the luminosity (details of the analysis available on demand).

A solution adapted to each project

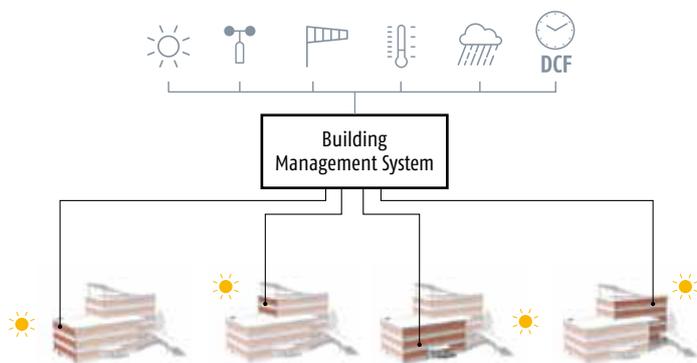


Flexible to install, easy to use and compatible with most protocols and control units on the market... All Somfy solutions are a perfect match for the needs and restrictions of the luxury hospitality sector.

You can let customers make the decisions using wall-mounted control units or remote controls, anticipate requirements using timer programs, or opt for sensors to take care of things automatically... Whether you want to equip a whole building, a floor, public areas (corridors, reception areas, etc.) or a façade, your choice will depend on a number of criteria: the number of solar protection devices that need to be operated or zones to be managed, the type of management or maintenance system, functions required and price.

Building management system

Sun-protection management systems with the animeo range
(available in LON, KNX, Premium)
Sensor parameters, zone-based control, supervision, etc.



Bedroom ↘

Outdoor sun protection:
Screen

- Motor: Altea
- Local control: Smoove

Indoor sun protection:
Curtain

- Motor: Glydea
- Local control: Smoove

+ RS485 transmitter control
(touch panel: to operate, light, projection screen, blinds, etc.)



Outdoor sun protection:
Roller shutter

- Motor: **Oximo**
- Local control: **Smoove**



Outdoor sun protection:
Venetian blind

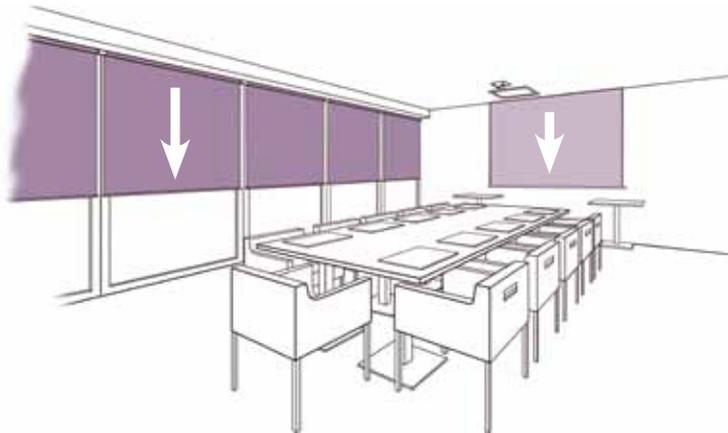
- Motor: **J4**
- Local control: **Telis Modulis**



Outdoor sun protection:
Screen

- Motor: **Altea**
- Local control: **Smoove**





Meeting room

Outdoor sun protection:
Screen

- Motor: Altea
- Local control: Smoove

Indoor sun protection:
Roller blind

- Motor: Sonesse
- Local control: Smoove



Lobby

Outdoor sun protection:
Roller Shutter

- Motor: Oximo
- Local control: Smoove

Indoor sun protection:
Roller blind

- Motor: Sonesse
- Local control: Smoove



Dining room

Outdoor sun protection:
Venitian blind

- Motor: J4
- Local control: Telis Modulis

Indoor sun protection:
Roller blind

- Motor: Sonesse
- Local control: Smoove



Indoor sun protection:
Blackout screen

- Motor: **Sonesse**
- Local control: **Smoove**



Indoor sun protection:
Curtain

- Motor: **Glydea**
- Local control: **Smoove**



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SOLUTIONS FOR BIOCLIMATIC FAÇADES

Somfy operates in 54 countries,
with 68 subsidiaries,
51 offices and branches
spread across 5 continents.

With 7 production centers,
Somfy has effective,
responsive manufacturing facilities.

Thanks to its strict quality standards,
Somfy is able to satisfy the needs of
270 million users and
32,000 business clients worldwide.