

Intelli-shade | August 2022

Dear Valued Customers and Somfy friends,

With the increasing concern and awareness around climate change globally, Somfy has a role to play in protecting the environment and sharing progress. Our overall performance is a combination of both financial and non-financial performance. For these reasons, sustainability is essential to our strategy.

Climate change is a reality for everyone on the planet. As a company with roots at the foot of the Alpine glaciers, we see it every day. Even though the causes are known — CO₂ emissions, demographic pressure, and more — the consequences are immeasurable. Faced with this climate emergency, we are convinced that we can act to preserve the planet. As a player in homes and buildings for over 50 years, we know that the fight against global warming starts with building performance.

“Sustainability is an essential part of our strategy: On the one hand, it creates value, and on the other hand, it is central to our employer brand...”

*Jean Guillaume Despature,
Chairman of the Board of Directors*

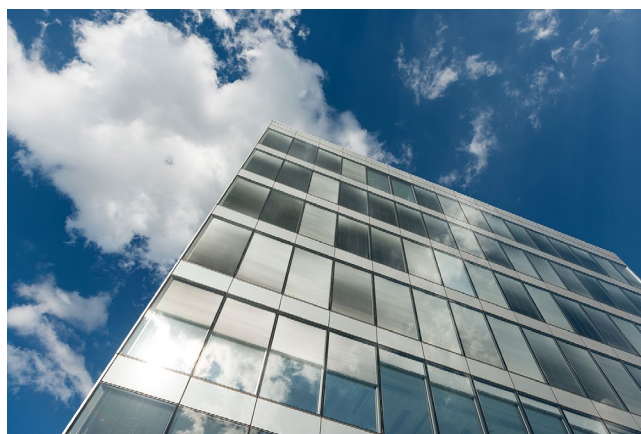
With Sustainability as the theme for this edition, here you will find information regarding — Somfy's involvement over the world with different government bodies and agencies, working towards making building performance better and reducing environment impact; details regarding how our products and solutions contribute towards making the building environment more sustainable; main functionality of our system that help make this contribution possible and, some case studies of projects where Somfy is part of and contributing towards high performing buildings.

We hope you enjoy reading the content and please feel free to contact our local Somfy representative for any further information you may require.

Best Regards,

Vishal ARORA

Projects Channel Director — Asia Pacific



About Somfy

Greenhouse Gas Emissions in buildings is one of the largest emitters of CO₂. Somfy's mission is to create an "Inspiring a better way of living accessible to all" and our aim is to reduce our CO₂ emissions by 50% by 2030.

Today, more than 60% of our product is now eco-designed and has reduced 40% power consumption. We have also developed intelligent solar protection and roller shutter control solutions which helps to reduce the need for heating in winter and the use of air conditioning in summer. To validate our approach, we teamed up with Carbone 4 to develop a model to calculate emissions avoided when using our motorized solutions and automated roller shutters. In France, this is equivalent to 120 kT of CO₂ in 2019, or the carbon consumption of 10,000 French people in one year. Our solutions avoid three times more CO₂ than they produce.

In addition, Somfy is actively working with building regulations and industry players together to reduce the impact of climate change around the world such as UK, Germany, Greece and North America. In France, automated solar shading is well considered for new buildings, a key solution to increase energy efficiency of buildings, comfort and health for the occupants and enable existing buildings to become resilient to climate changes, including notably heatwaves.

Recently, we have sponsored a Guidehouse study, initiated by European Solar Shading Organization (ES-SO), to evaluate the impact of automated solar shading through different scenarios in Europe. The study takes established baseline data and makes projections for future emissions from air conditioning across Europe and define as "Business as usual" scenario, and compares it with "preferred scenario", where 70% of the buildings are properly equipped with air conditioning and automated solar shading by 2050. The result shows 58% decrease in Greenhouse Gas Emissions of cooling and heating equivalent to 870 TWh of saved final energy and 100 million tonne reduction in CO₂ emissions, (annual CO₂ emissions of 22 million cars). This also means saving of

285B€ from end user's energy bill and contributes to a better energy dependency for European Union.

Closer to our own home, Asia, despite of the lack of relevant building regulations, Somfy joins forces with local industry associations and green building councils to educate the possible contribution to a more sustainable building environment.

"We are at the starting point of creating an energy rating program that will provide architects, building engineers and ultimately end-consumers with reliable information on the energy performance of window coverings and sun shading products."

*Stephen Eggleton,
Managing Director of Somfy Australia and a
Board Director of Blind Manufacturers'
Association of Australia.*

In India, we sponsored on a local study with The Energy and Research Institute (TERI), around impact of dynamic solar shading in building performance. Last but not least, we are taking active participation in the influential bodies such as Green Building Council in Hong Kong, Singapore, Green Re-modelling Business Group by the Ministry of Land, Infrastructure and Transport, Zero Energy Building and Smart Grid City Plan by Korea Energy Agency.

It's time for us, as a whole, to make bolder steps towards sustainable design and reduced emissions.



**ACT NOW
FOR CLIMATE
CHANGE**

Knowledge

How Smart Shading Solutions Can Help Achieve Net Zero Buildings

With more than 70 countries having pledged to reach net zero status by 2050 and more than 190 countries having joined the Paris Agreement, the pressure and urgency to adopt radical changes continues to grow. As of today, more than 1,200 independent companies around the world, including Somfy, are taking proactive measures and meeting science-backed goals aligned with net zero targets.

Formally, net zero refers to when total emissions is minimised as much as possible, with emissions in total being less than what is removed from the atmosphere. On a global level, buildings and construction are responsible for up to 37% of greenhouse gas emissions. According to the latest report and roadmap released by the International Energy Agency, emissions from infrastructure and buildings take longer to reduce than other sectors. Trajectories show that in order for the infrastructure and buildings sector to meet the Paris Agreement goals, this sector needs to reduce its emissions by 50% by 2030. With Bhutan and Suriname being the only countries to have achieved net zero status, accelerating our efforts to address greenhouse gas emissions in the building sector is paramount to meeting the Paris Agreement.

Achieving net-zero for buildings

For a building to achieve net zero status, energy efficiency should be top of mind throughout its design, resulting in the building maximising on energy efficient operations. The building should run on energy sources which have no emissions, or will be fully decarbonised by 2050. Buildings which are fully electrified would meet this requirement. Building materials should also be chosen responsibly, accounting for any embodied carbon, and the use of emissions intensive building materials should be minimised. With buildings becoming dynamic role players in the energy sector, being able to behave as a load and a source of distributed energy to the national grid, building intelligence is swiftly becoming a standard requirement in new constructions. Top tier developers have recognised the value of building data as it opens possibilities for performance tracking and improved operational efficiency.

Somfy customized solutions for energy saving

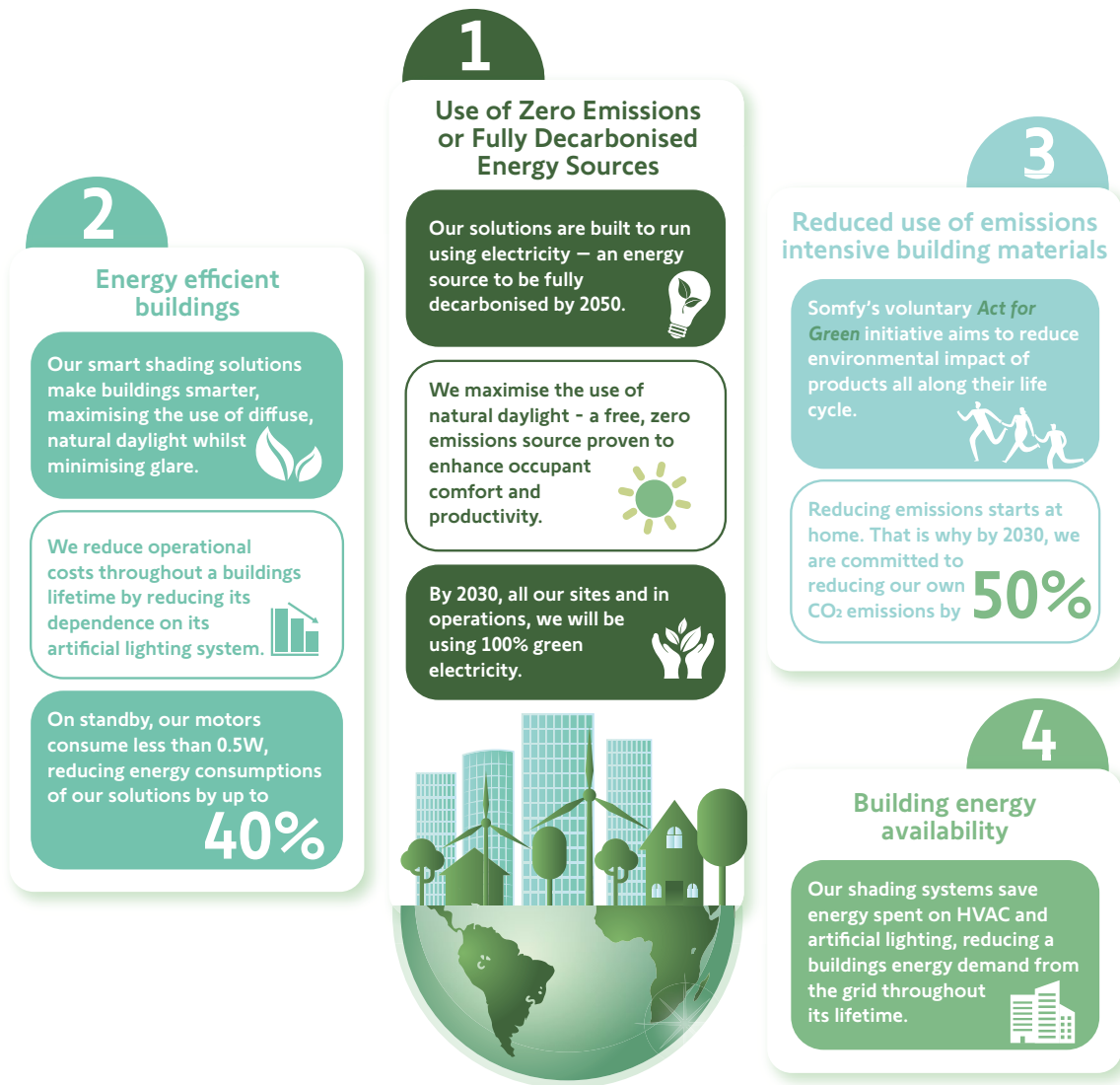
Somfy's automated systems allow for customised control of the buildings shadings systems, keeping both energy savings and occupant comfort front of mind, resulting in operational savings over the lifetime of the building. By minimising the emissions of our motors and controls through Somfy's voluntary initiative *Act for Green*, choosing a Somfy Solution means choosing less energy intensive building materials. How we source energy

is important to us, and that's why in all our sites and operations, we will be using green electricity, and buildings which aim for the same, will always find our solution compatible.



Knowledge

How Smart Shading Solutions Can Help Achieve Net Zero Buildings



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Product

animeo Features

In our last issue, we talked about 'animeo solution', the intelligent building control system of Somfy. This system enables motorized solar shading system to be controlled easily with variety. animeo provides flexible and scalable solutions for automation of solar or motorized shadings, which caters to different needs for every building and their users' need.

Today, we are going to talk about the animeo features in detail, how it controls blinds automatically and how to manage them by sun position or shadow.

Centralized Management vs Local Control

animeo solution is a centralized management system which you can manage motorized blinds with computer program or touch-pad on the wall. Centralized management via animeo is easy to integrate, operate, and help reduce running costs while providing comfort for people in the building. The system also enable users to control individual blinds via remote manually or via customised settings (e.g. Closing blinds at 9 am)

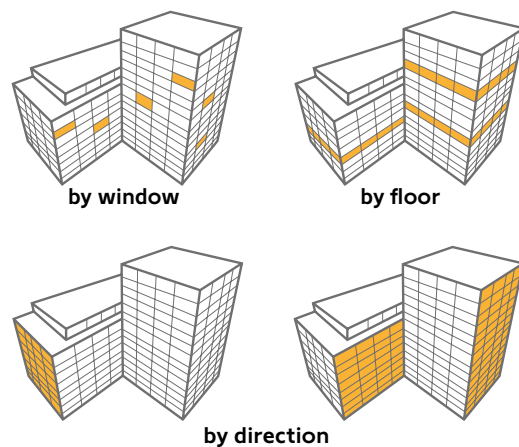
Automatic Control

The control protocol can be set as automatic and non-automatic and in schedule-based. Typically, the building would run on automatic control during the operational hours while non-automatic during closure. During non-automatic control periods, the solar shading products shall be positioned to preset closed (100%) position. The time schedule can be weekly/Daily based with exceptions for holiday and other predefined periods as per the user needs or requirements. Where local control overrides automatic functions, a periodic timer can be deployed via the software to bring the blinds back into automatic function.



Timer

Usually many of buildings which are controlled by building management system(e.g. office, school, or hospital) have each lifecycle by users. animeo system can control shading devices by schedule as well.



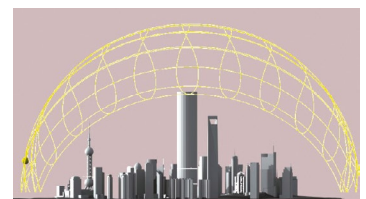
Zoning

For the purpose of automated control, it is required that all products are divided into groups. These groups are normally dictated by façade, product and separated function. Each group is known as a zone; the Somfy KNX Master Control can control up to 16 zones. Rezoning can be done without any alterations in the hardware.

Sun Tracking

The sun light intensity is measured in real time and position is derived from the latitude and longitude of the specific area. The sky conditions are scanned every 60 minutes (minimum & programmable) and if the sun is detected on a predefined zone/area, blinds or group of blinds will move in steps to cut out the direct glare into the room and improving general visual comfort.

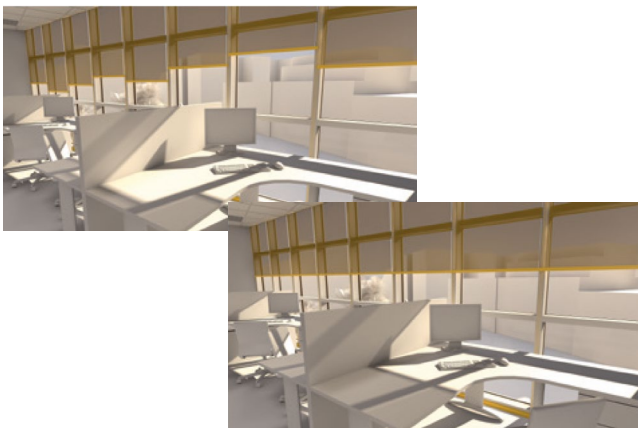
The sunlight depth penetration into the room can be programmed at any point using the Somfy KNX operating software.



Product

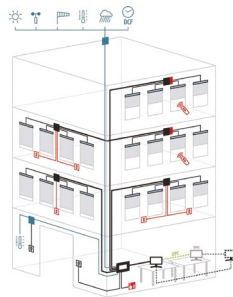
Perfect Alignment

For perfectly ordered façade, this function is the best solution. Building manager can tidy up the height of blinds easily with animeo system. For more precise control, animeo KNX RS485 system is recommended because it can maximize “perfect alignment” by two-way communication between roll screen motor and the controller.



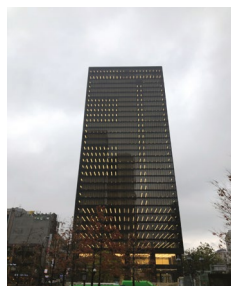
Fire Alarm Interworking

In the event of fire in high-rise buildings, closed roller blinds can result in bigger accident even if the smoke ventilator is opened. With animeo system, motorized roll screens can be in conjunction with a fire alarm system via motor controller to be automatically opened in case of a fire.



Facade Message

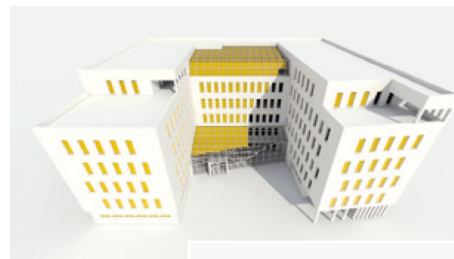
Using Somfy KNX system, we can display message or word which the building owner or user pre-set on the building façade using OPC server.



Shadow Management

This function enables optimisation of standard solar functions such as sun tracking by ensuring products only in sun respond, maximising natural light within the shaded area and reducing the dependency on artificial lighting systems and improving general visual comfort and well being. Shadow management by Somfy is generated using a 3D building model taking the following various factors into account:

- ✓ The building's architecture.
- ✓ The building's geographical location.
- ✓ The number and position of its windows.
- ✓ The position of neighbouring buildings.
- ✓ The sun's path relative to the building.



These details are programmed into a database, applied as calendar of operation, and activated in real-time response to sun from sensors mounted on the roof. Thus, only windows/zones exposed to the sun have their solar shading lowered.

Case Study

Project Name: **Harbour East,**
218 Electric Road

Location: **Hong Kong**

Developer: **Henderson Land Development**
Company Ltd.

Architect: **DLN Architects Ltd.**

KA: **Focal Pacific**

Total area: **121,000 sq ft**

No. of floor: **22 floors**

No. of windows: **1,232 approx**

Completion Year: **2019**

Somfy Solution offered:
animeo IP RS485 (BMS Interface)

Motor:

Sonesse 50 RS485

Sonesse 30 RS485 2/28

Control:

RS485 Bridging Adaptor

RS485 Terminator

BMS Interface

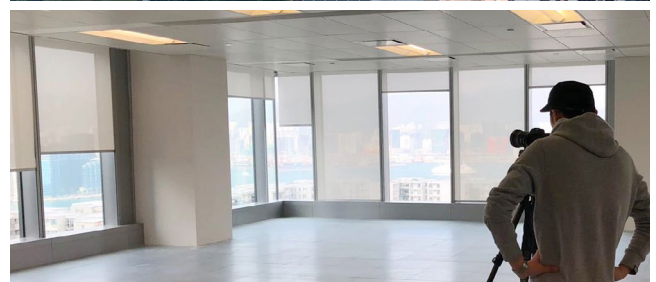
Located in the heart of the Hong Kong Island, the Harbour East is one of the first few commercial building awarded by Hong Kong Green Building council achieving BEAM Plus v.1.2 Provisional Platinum and Platinum LEED certified in Hong Kong.

With its objective of creating a green design and healthy workplace, the Harbour East was built with large curtain walls with windows that are designed to enhance ventilation and stress free environment. Somfy is proud to stand out among competitors, by offering stable and smart controls with local team support to win this project.

In this project, client request was to have Smart Control on roller blind with different percentage and feedback. Somfy offered the animeo RS485 solution, an intuitive user interface that allows simplified commissioning, building management, reduced wiring installation and at a glance system status updates.

The Somfy IP RS485 Building Control can control up to 'n' number of zones as it has no limit. animeo IP RS485 solution automatically adjust digitally addressable motors throughout the day in response to the change in sun's position.

Somfy Web Remote Controller feature also allows occupant to control the shades via computer or any smart phone. Thanks to the enabled sun tracking function, and Sonesse RS485 quiet digital motors, precise positioning and alignment preserves outside view with great ambiance contributing to pleasant work place & well-being of occupants.



LEADERSHIP IN ENERGY AND
ENVIRONMENTAL DESIGN (LEED)
PLATINUM CERTIFICATION
(CORE & SHELL)



HONG KONG GREEN BUILDING COUNCIL
GREEN BUILDING AWARD 2016
MERIT AWARD (NEW BUILDINGS CATEGORY)



WELL BUILDING STANDARD (WELL)
GOLD LEVEL PRE-CERTIFICATION (CORE & SHELL)

Case Study

Project Name: **Macquarie University
(Central Courtyard)**

Location: **Sydney, Australia**

Builder: **FDC**

Architect: **Architectus**

Total area: **3,400 m²**

No. of floor: **4 floors**

No. of windows: **approx. 600**

Completion Year: **2020**

Somfy Solution Offered:

Motor: **333 LS40 3/30**

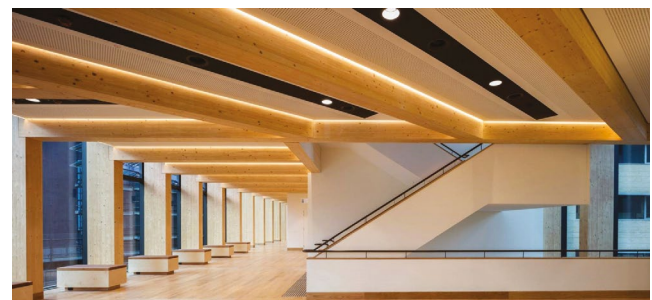
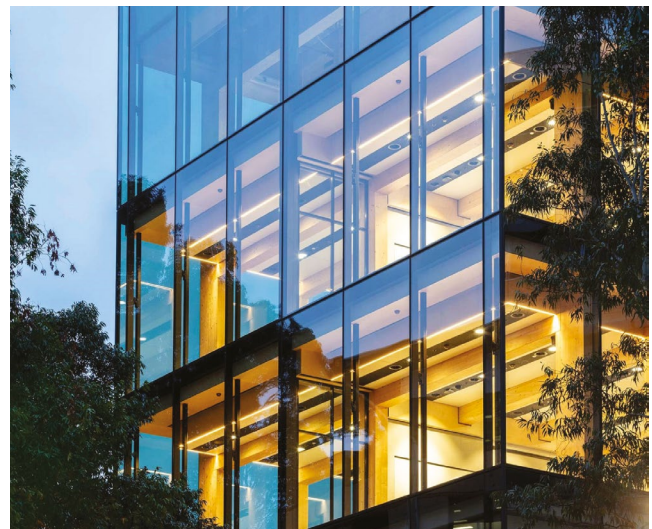
Control:

**animeo KNX with shadow management &
RTS switches**

The newest addition to Macquarie University's campus, the Central Courtyard or 1CC, boasts a four-level building, incorporating a graduation hall, multiple function rooms, beverage and retail outlets, formal classrooms and informal spaces, and a frameless glass façade.

The development has achieved a 5-Star Green Star Design and As Built rating from Green Building Council of Australia — reflecting the strategic goal to create a sustainable campus — through its use of energy efficient lighting, a highly efficient façade system and even power generation using on-site photovoltaic cells.

Somfy animeo KNX system is particularly advantageous, giving added control and visibility of the system. Somfy Services installed high-level interfaces to both the BMS and AV systems via KNX interfaces. By doing this at high-level, Somfy services was able to set priorities for each user or automatic function. Motors can be addressed, monitored, and controlled individually, giving occupants the flexibility to customise their favourite blind position.



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