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Intelli-shade | April 2022

Dear Valued Customers and Somfy friends,

Hope you and your loved ones are doing well and early part of this year has been satisfying so far. On our side, we are experiencing a strong growth in business driven by high demand from across the geographies, slightly dampened by the global semiconductor crisis which has not spared any industry dependant on related components. So far, we have been able to balance off well because of phenomenal back-end work done by our R&D and production teams.

Closer to our topic, we are pleased to bring to you the next edition of our quarterly newsletter 'Intelli-Shade', an exclusive newsletter for Project's business community.

While maintaining the same thread of information sharing like in the previous edition, this time we would like to deep dive into the possibilities of a connected environment in the context of projects involving motorised shading for inter-operability with other building services. Increasingly, buildings are being designed with different services being monitored and controlled centrally for a seamless operation and maintenance environment. Somfy range is designed to be integrated with all the major industry standard protocols as we believe in Open protocol strategy instead of proprietary ones, to allow customers flexibility as well as control of the system they own.

Towards the end there are project case studies highlighting this aspect in operation.

We have also tried to simplify the selection of intelligent control system range — Animeo, which makes shades operate automatically without manual intervention, based on weather conditions, geographical location of the project and time of day. Range selection is based on the functionality required for the specific project.

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

Best Regards,

Vishal ARORA

Business Development Manager-Asia Pacific, Commercial Project Solutions and Services



Somfy Lighthouse is an Experience Center showcasing Somfy's active management solutions for the building embraced in the service of interior comfort.



About Somfy

Somfy Worldwide Operation Targeting Excellence

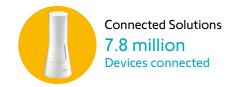
Somfy announces strong sales growth for the 2021 financial year, still driven by a very healthy momentum in the first six months. Despite the ongoing shortage of electronic components and the pressure on raw materials, Somfy Group continued its efforts to address market demand as effectively as possible during the second half-year.











INDUSTRY & LOGISTICS

Somfy's industrial and logistics network has been subject to in-depth optimisation and modernisation in 3 main pillars.

Digitalisation of Factories

This programme involves harnessing the full potential of the production operations management software, hardware and applications suites.

Productivity Gains

Our long-term productivity plan is to neutralise the increase in raw material prices.

Optimisation of the Logistics Network

More than 80 logistics centres of various sizes around the world has been going through optimisation process to improve performance.



Knowledge

Unlocking the benefits of an intelligent shading system fit for a post-pandemic world

The pandemic has prompted massive changes across the world, leaving industries continuing to adapt to new ways of working. Hybrid working schedules have become non-negotiable, with widespread adoption as a direct result of the pandemic. While remote working was initially adopted as a measure of employee protection and safety, a balance of working remotely and in office has now become recognised for its ability to improve both employee productivity and wellbeing.

As we enter a post-pandemic world, there is a renewed emphasis on human wellbeing. Employees' expectations are changing, placing a greater importance on the comfortability of a workspace. The workplace is no longer seen as a place solely to facilitate work related tasks.

Instead, a more holistic approach to the ideal workplace is taken, considering all aspects of work — collaborative spaces, isolation and focus, as well as mindful pauses between tasks. To secure/retain talent, organisations have adapted by formalising hybrid work policies and revaluating how workplaces can be adapted to serve its occupants better.

Extensive research shows that in any enclosed environment, giving occupants adequate access to natural daylight and allowing them to connect with the exterior environment have been shown to significantly improve occupant wellbeing. Green Building councils around the world, LEED and the International WELL Building Institute have equally recognised this, stating minimum spatial daylight autonomy requirements in their certification processes [1] [2].

Recognising the direct positive correlation between adequate access to daylight and occupant wellbeing, a reliable way to maximise access to natural daylight whilst keeping heat and glare away from the interiors is to

integrate automated shading solutions into the BMS.

Somfy's animeo range of intelligent controls for blinds and shutters are accessible to buildings of different sizes and types, and is offered in various technologies — IB+, IP/RS485 and KNX, all of which can be easily integrated into a building management system. Integrating Somfy's animeo range into a buildings BMS/LMS takes the functionality of the building one step further, availing a range of comfort, energy savings and security functions.



Figure 1 Integrating Somfy's animeo range into a buildings BMS/LMS takes the functionality of the building one step further, availing a range of comfort, energy savings and security functions.

Automated Shading System and Lighting Management System to maximise efficiency and comfort

With Somfy's solutions, a buildings automated shading system can work hand in hand with its lighting management system to achieve more efficient operations and greater occupant comfort. For example, during the day in warmer climate zones, an automated shading solution uses precise geolocation to track the suns movement and maximise the occupant's access to natural daylight whilst keeping glare out. Subsequently, lux sensors from the lighting management system will read higher lighting levels and reduce the need for

artificial lighting. In this way, occupants experience an improved level of comfort with natural daylight and being connected to the outdoors whilst the building reduces its energy consumption.



Figure 2
Weather stations and sensors on the façade allow for the blinds to track the movement of the sun, working to allow natural daylight in whilst effectively keeping heat and glare out.



Knowledge

Shadow Management

Another comfort and energy saving feature includes the shadow management tool. This tool is most suitable for buildings in high density areas where neighbouring buildings are likely to cause shadows on the façades.

The shadow management tool works by allowing only the windows/zones exposed to the sun to have their solar shading lowered.



Figure 3 Somfy's Shadow management device manages the buildings response to shadows cast on it by neighbouring buildings, allowing only the windows/zones exposed to the sun to have their solar shading lowered.

Energy Efficiency

Additionally, other energy saving functions can be employed - timers at building and zone levels allow the facilities manager to control when the blinds need to be adjusted throughout the day. Facilities management can also set authorised access control of the shading system on a per zone level, to prevent unauthorised access.

Responses to Emergencies

Keeping occupant safety paramount, the shading system can be integrated with the fire alarm. When the fire alarm is triggered, occupants are given greater visibility as the shading system automatically opens, allowing them to evaluate their exterior environment.

Protection for Adverse Weather's Onslaught

Somfy animeo solutions also incorporates exterior shades protection, using sensors placed on the facades to trigger the relevant shades to retract. This feature is useful for extreme weather conditions such as high wind speeds, snow, or heavy rainfall.

Centralised and Local Control

Finally, real time remote management is done with ease thanks to Somfy's animeo range offering control via web or PC. With the animeo range the occupants can still be empowered to fine tune their local environments by means of user displays, wall controls, and manual priority settings if preferred.

With a vast range of benefits offered by the Somfy animeo automated shading solution, it is clear that automated shading systems can contribute effectively to the wellbeing needs of the occupants whilst simultaneously maintaining efficient operations of a building.

Reference

[1] International WELL Building Institute , "Daylight Modelling," 2020. [Online]. Available: https://standard.wellcertified.com/light/daylight-modeling.

[2] LEED, "Daylight," 2022. [Online]. Available: https://www.usgbc.org/credits/healthcare/v4-draft/eqc-0



Product

Somfy animeo Solutions

Somfy solutions include not only motors but also intelligent building control systems - animeo.

animeo is a range of intelligent controls to manage blinds and shutters within buildings, designed to adapt to any façade configuration. By optimizing the management of sun, shade and air in buildings, animeo solutions actively enhance occupants' well-being while improving the building's energy performance.

animeo controls enable façade management systems to control of all or part of solar shadings and windows via a PC or a dedicated control system. The main elements to be considered are the geolocation of the building, user needs, and the definition of zones.

• animeo IB+ Touch Buco

An intuitive touch screen solution. Ideal for buildings with one owner or tenant, or multiple tenanted offices.

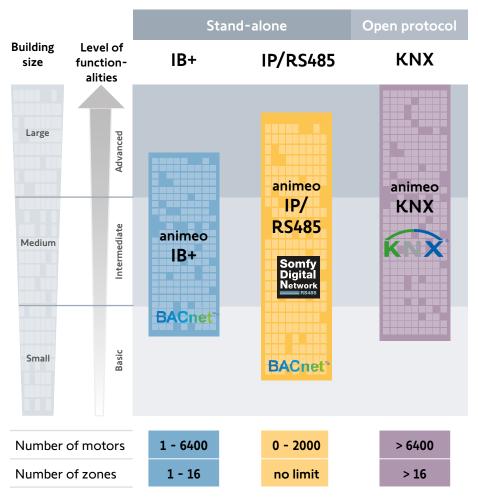
• animeo IP/RS485

Dedicated to new medium to large buildings, animeo IP/RS485 is the digital solution that makes it easy to manage your sites with an intuitive user interface.

animeo KNX

Controller to control all types of blinds and window coverings.

animeo range overview





Product

	Features	IB+Touch BUCO	IP / RS485	KNX	Description
Third Party Integration	No. of Zones	1-8	No Limit	>16	Zones can be created for controlling shades together
	My Sun Position	Υ	Y	Υ	Programming based on feedback received from sun sensors
	Sun Tracking	Υ	Y	Y	Shades movement based on sun position based on building geo-localisation
	Shadow Tracking	N/A	N/A	Υ	Based on shadow projected on the window, shades movement is decided.
	Integrated Build- ing Timer	Υ	Y	Υ	Pre-programmed schedule for complete building shades
	Integrated Zone Timer	Υ	Y	Υ	Pre-programmed schedule for zone-based shades
	Integrated Yearly Timer	N/A	Y	Υ	Pre-programmed Yearly schedule of shades movement
	Zone Control Switch Key	Υ	Y	Υ	Local Key switch to override zone-based shades
	Motor Status Feedback	N/A	Y	Υ	Stating current position of shades and motor
	Local Control	Υ	Y	Υ	Keypads provided for manual control
	Blind Alignment	Υ	Y	Υ	Blinds will be aligned to same position in respect to room aesthetics.
	Façade Message	N/A	N/A	Υ	Message/Word to be displayed on façade
	Manual Override	Υ	Y	Y	Occupants can control their shades using keypad and overriding automated functionality
	BMS Integration	N/A	Y	Υ	BACNET integration for status of motor position & remote access
	Third Party Communication	N/A	Y	Υ	Third party controls to be used for shade manual override
	Safety Function (Wind/Ice/Rain/ Frost)	Υ	Y	Y	Based on Outdoor sensor, weather conditions shades movement is decided
	Fire Alarm Integration	Υ	Y	Υ	All blinds will go up in case fire alarm is activated



Case Study

Project Name:

Two Melbourne Quarter

Location: Collins Street, Melbourne,

Australia

Builder: Lendlease

Total area: 51,700 m²

No of floor: 11 floors

No of windows: 3,000

Blind Manufacturer: Vertilux

Somfy Solution Offered

Motor: 1,000 Sonesse 40 WT motors

Control: KNX motor controller with RTS

card & BACnet Interfaces

BMS integration: Bacnet IP (Intesis Box

brand) Smoove RTS and KNX RTS Cards for user

override

Deep in the heart of Melbourne sits Two Melbourne Quarter, a cutting-edge tower designed as a destination for people to work, play and thrive.

Designed by Australian architects Woods Bagot, 2MQ —6-Star Green Star Communities Award from the Green Building Council of Australia features a glazed façade and emphasises agility through collaborative workplaces and tech-enabled indoor and outdoor sanctuaries

With a strong focus on sustainability, automated technology and energy efficiency were of utmost priority during the design process of the 30-level tower. Somfy's animeo KNX System contributed to the development's Sustainability Action Plan which included recycling 90 percent of construction waste and capturing stormwater for irrigation of the open green spaces.

"Melbourne Quarter is our latest in next-generation technology-enabled workplaces and is one of Melbourne's largest mixed-use urban regeneration developments," said Matthew Mears, Lendlease's Managing Director.

A total of 1,000 Sonesse 40 WT motors were used in the project. Accompanied by 273 KNX 4AC Motor Controllers, the Somfy animeo KNX Blind Control System works seamlessly with the BACnet Building Management System to control and communicate between the building functions, optimising both occupant comfort and energy consumption.

Somfy Commercial Expert DAAC installed the 3,000 Sonesse powered roller blinds, manufactured by Vertilux. The blinds used EuroVision Metallised Kiev Fabric, made from 100% Trevira CS, making it inherently flame retardant unlike other alternatives which use chemical treatments

The Somfy animeo KNX system is particularly advantageous, giving added control and visibility of the system. Motors can be addressed, monitored and controlled individually, giving occupants the flexibility to customise their favourite blind position.

System maintenance can be completed with ease, with faults or power failures on motors or motor controllers communicated directly to the Building Management System. Additionally, motors and zones can be reconfigured through software, eliminating the need to rewire. The system can also be integrated with Audio Visual for conference and meeting rooms, allowing for blinds to be automatically adjusted according to audio/visual requirements.









Case Study

Project Name:

Wan Hai Lines Headquarters

Location: Neihu, Taipei City, Taiwan

Builder: Chong Hong Construction Co., Ltd.

Total area: 12,635,131 m²

No of floor: 8 floors plus

5 underground floors

No of windows: 432

End product: Roller blinds

Fabricator: **BETA**

Somfy Solution Offered

Motor: 432 Sonesse 50 RS485

quiet digital motors

Control: animeo IP/RS485 facade

control solution

Integration: Crestron

New Wan Hai Hub Shines with High Technology in Taipei Headquarters

In 2020 Wan Hai Lines Ltd., a large-scale Taiwanese shipping conglomerate and among the top global shipping companies, acquired a newly built commercial building as their new headquarters in Taipei.

Commercial buildings evolve like all other architecture. The changing needs of people's well-being, new technologies and the availability of new materials all affect the architectural trends of commercial buildings. Ranking at the top of design considerations is the need to accommodate both aesthetic aspects and practical innovations to ensure the highest performance and sustainability.

Wan Hai found the incorporation of smart building concepts by the developer to be highly appealing. To elevate these concepts further, Wan Hai explored other high technology solutions and Somfy's business partner BETA supported with the design of the automated interior shading.

Somfy's animeo IP/RS485 facade control solution was chosen, with this digital intelligent control integrating with the building management system to centrally manage any blinds within the building. Designed for medium to large building applications, animeo IP/RS485's intuitive user interface allows simplified commissioning and maintenance support.

Thanks to the enabled sun tracking function, and Sonesse 50 RS485 quiet digital motors, precise positioning and alignment makes perfect aesthetic to the facade. An additional benefit of Somfy's RS485 motors is the inclusion of bi-directional feedback allowing real-time monitoring of the motors.

Natural light management is automated based on the sun's position and façade direction to minimize glare and maximize the opportunity for daylighting. Wan Hai Lines, like many other forward-thinking businesses understands that enhanced visual comfort supports employee wellbeing while improving the building's energy efficiency.

Somfy and partner, BETA, are proud to commission the solar shading system of this newest Wan Hai Lines Headquarters and furthermore marks the first installation of animeo IP RS485 solutions in Taiwan.







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