



LONMARK®
ESPAÑA

LonMark Solutions 2011

Valor añadido de la integración multiprotocolo
en proyectos reales

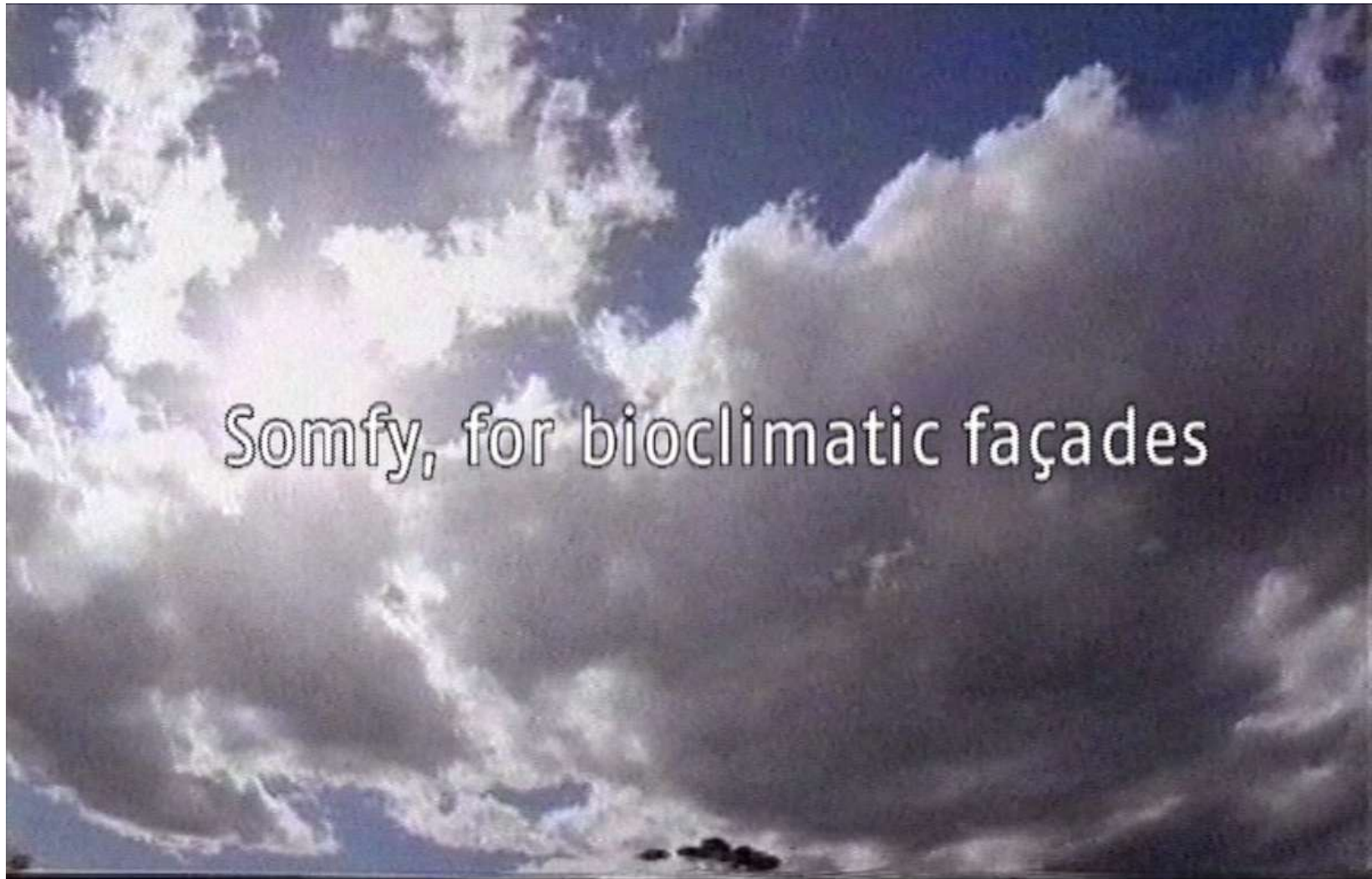
TORRE IBERDROLA: Control De Lamas Horizontales para la eficiencia energética

Alex Català – Soporte Técnico CBS

SOMFY España S.A



ACTORES



EL EDIFICIO

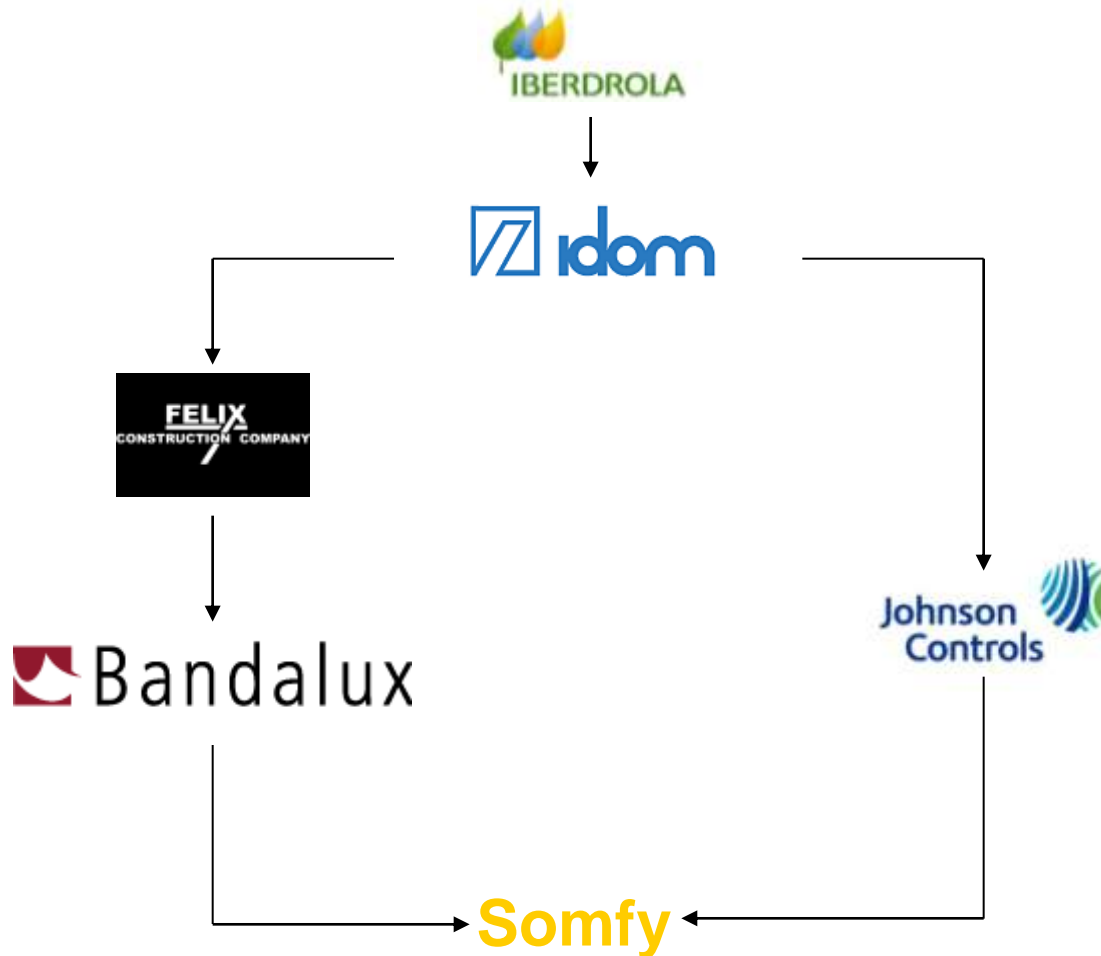
- Propiedad: Iberdrola y BBK.
- Arquitecto: Cesar Pelli.
- Ubicación: Bilbao.
- Altura: 165m.
- Plantas: PB+41
- Superficie: 50.000m²
- Uso: Oficinas.
- Ingeniero estructural: IDOM.
- Fachadista: Félix Constructions.
- Integrador: Johnson Controls.



LA FACHADA

- La envolvente de la Torre Iberdrola esta formada por 3 partes:
 - Piel exterior con doble vidrio.
 - Cámara de aire ventilada con protección solar.
 - Piel interior registrable desde la oficina.
- La fachada se adapta a la planta elíptica del edificio generando una forma de proa, dando una sensación aerodinámica del edificio.
- El conjunto, de las 3 partes funciona como una fachada “dinámica” proporcionando unas óptimas condiciones térmicas, lumínicas y de radiación solar en tiempo real.

ACTORES



CONTRIBUIMOS

- Confort visual:

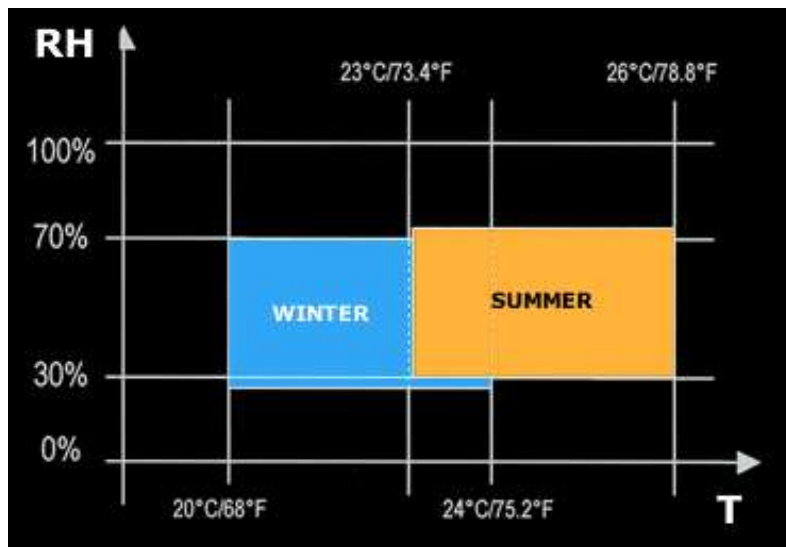


El Confort Visual se rige por la **REGLA del 1-3-10**. La relación entre la iluminación el “objeto” que está fijada la vista y el campo de “trabajo” es de 1 a 3, y con el resto de la habitación de 1 a 10



CONTRIBUIMOS

- Confort Termal:



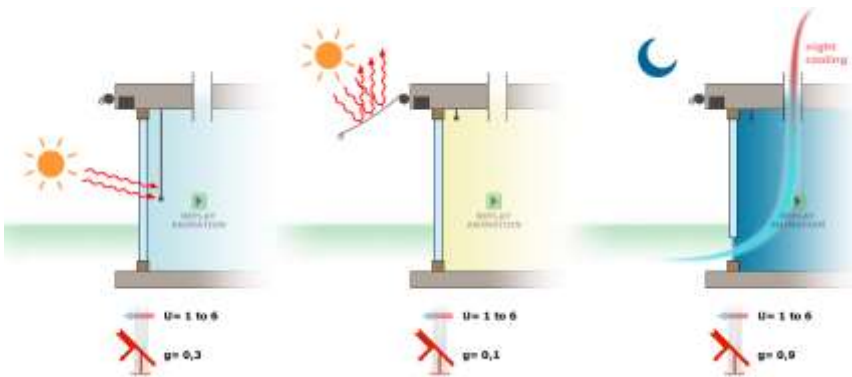
23° - 26° en Verano

20° - 24° en Invierno

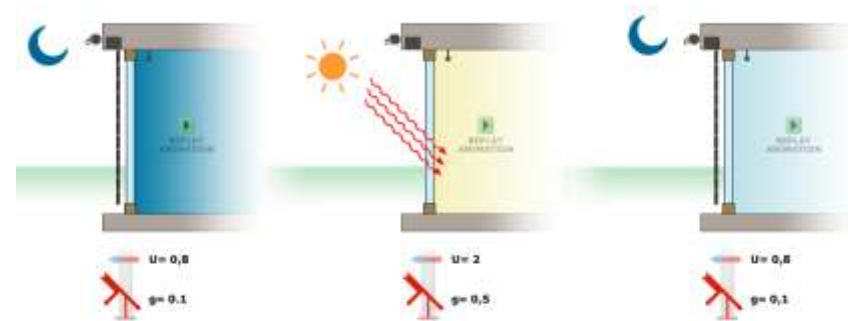
CONTRIBUIMOS

- Ahorro energético:

VERANO



INVIERNO



CONTRIBUIMOS

Somfy pueden contribuir en 19 puntos para la obtención de la certificación LEED

INDOOR ENVIRONMENTAL QUALITY: 15Pts

Credit 2 (1Pt)

Increase ventilation:

To provide additional outdoor air ventilation to improve indoor air quality (IAQ) and promote occupant comfort, well-being and productivity.

Credit 6.1 (1Pt)

Controllability of systems-lighting:

To provide a high level of lighting system control by individual occupants or groups in multi-occupant spaces (e.g., classrooms and conference areas) and promote their productivity, comfort and well-being.

Credit 6.2 (1Pt)

Controllability of systems-thermal comfort:

To provide a high level of thermal comfort system control, by individual occupants or groups

SUSTAINABLE SITES: 26 Pts

Credit 8 (1Pt)

Light pollution reduction:

To minimize light trespass from the building and site, reduce sky-glow to increase night sky access, improve nighttime visibility through glare reduction and reduce development impact from lighting on nocturnal environments.
> Somfy to contribute towards 1 Pt.

WATER EFFICIENCY: 10 Pts

ENERGY & ATMOSPHERE: 35 Pts

Credit 1 (1 to 19Pts)

Optimize energy performance:

To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.
> Somfy to contribute towards 4 to 11 Pts.

MATERIAL & RESOURCES: 14 Pts

LEED Facts

REGIONAL PRIORITY: 4Pts

LEED Facts

WATER EFFICIENCY: 10Pts

LEED Facts

MATERIAL & RESOURCES: 14Pts

LEED Facts

SUSTAINABLE SITES: 26Pts



Credit 8 (1 Pt)

Light pollution reduction:

Somfy To Contribute Towards 1 point by allowing light to go out using automated blinds along with lighting system.

TOTAL PROJECT:

1.00 base POINTS, 6 possible Innovation in design and 4 regional Priority points Somfy to contribute towards 12 to 19 points (10,9% to 17,2%) & allowing higher classification ranking.

LEED Facts

INNOVATION & DESIGN: 6Pts



Credit 1.1 (1 to 5Pts)

Innovation in design:

Somfy To Contribute Towards 1 point by educating the project team members about green building design and construction, the LEED requirements and application process early in the life of the project.

LEED Facts

ENERGY & ATMOSPHERE: 35Pts



Credit 1 (1 to 19 Pts)

Optimize energy performance:

Somfy To Contribute Towards 11 points by affecting energy saving of 32% of whole building (ASHRAE).

LEED Facts

INDOOR ENVIRONMENTAL QUALITY: 15Pts



Credit 2 (1Pt)

Increase ventilation:

Somfy To Contribute Towards 1 point by allowing natural ventilation (operable windows) during cool day and/or by night cooling.

Credit 6.1 (1Pt)

Controllability of systems-lighting:

Somfy To Contribute Towards 1 point thru the management of scenes between light and solar protection systems.

Credit 6.2 (1Pt)

Controllability of systems-thermal comfort:

Somfy To Contribute Towards 1 point by managing buildings dynamic insulation with cooling/heating systems.

Credit 7.1 (1Pt)

Thermal comfort-design:

Somfy To Contribute Towards 1 point by helping creating design in the building envelope for thermal comfort.

Credit 8.1 (1Pt)

Daylight & views-Daylight: Views for 75% of the space:

Somfy To Contribute Towards 1 point by increasing the luminosity while controlling glare and contrast.

Credit 8.2 (1Pt)

Daylight & views-Daylight: Views for 90% of the space:

Somfy To Contribute Towards 1 point by increasing the luminosity while controlling glare and contrast. View to outside thru motorized blinds (perforated, roller with special fabric spec).

> Somfy to contribute towards 6 Pts.



CONTRIBUIMOS

Somfy pueden contribuir en 19 puntos para la obtención de la certificación LEED

SOMFY LEED REFERENCE



Abu Dhabi Financial Center (ADFC)

- Date: July 2010
- Type: Office
- Controls: Animeo Lon Subnet
- Quantity: 1780
- Gold LEED Certification



MGM City Center's Vdara Towers

- Date: November 2009
- Type: Hospitality
- Applications: Roman Shades
- Motors: Sonesse 50 RTS
Quantity: 9000
- Controls: Customized DecoFlex
RTS Wall Switches
Quantity: 2200
- Gold LEED Certification

FUNCIONALIDADES REQUERIDAS

- Equipar la fachada con una protección solar que permita el aprovechamiento de la luz natural.
 - *Venecia con lama de 25mm microperforada.*
- Conseguir diferentes posicionamientos dependiendo de la intensidad y posición solar.
 - *Función Suntracking.*
- Asegurar el alineamiento durante los recorridos y paradas de las cortinas. Uniformidad visual.
 - *Motor con encoder.*

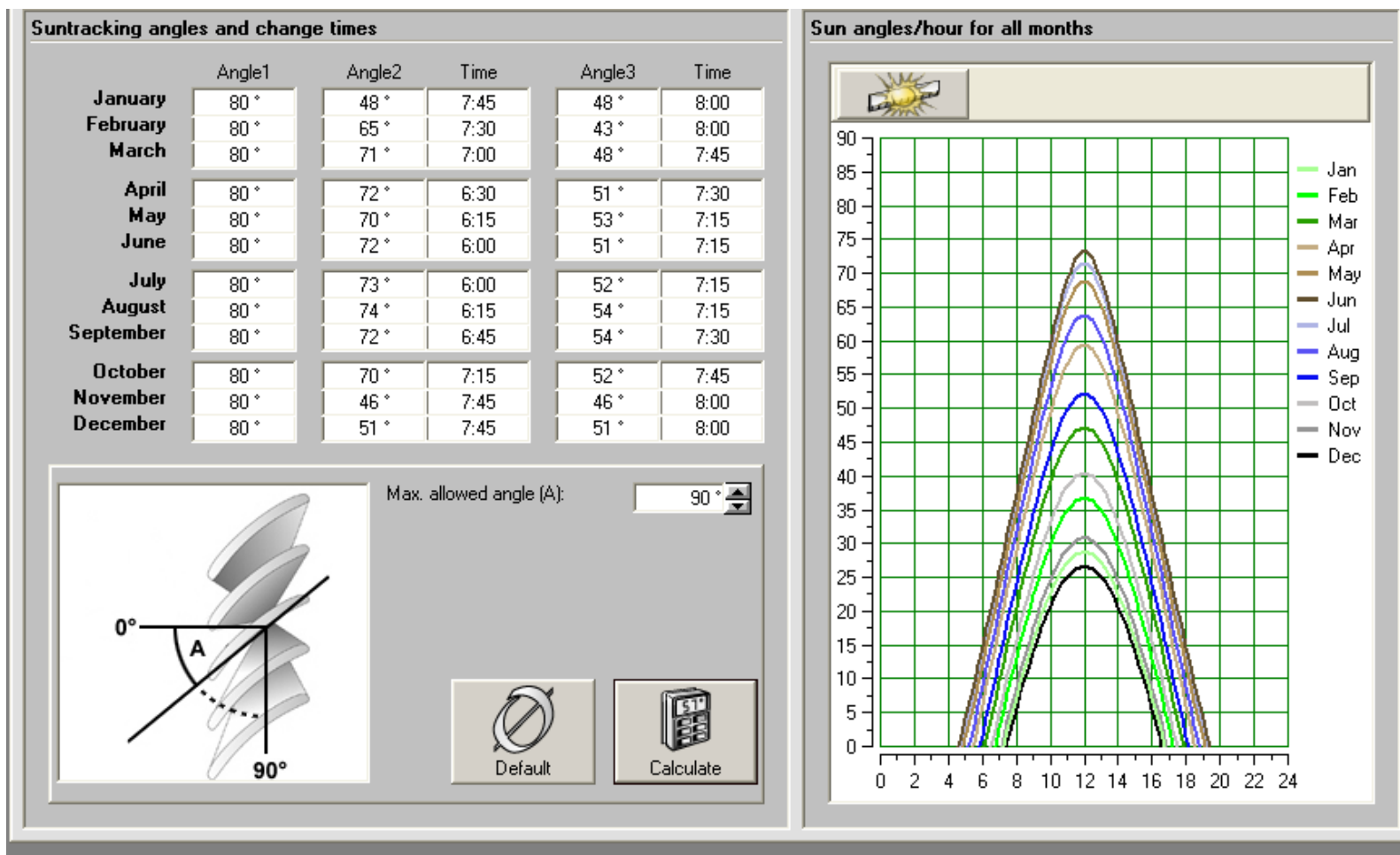
FUNCIONALIDADES REQUERIDAS

- *Venecia con lama de 25mm microperforada.*



FUNCIONALIDADES REQUERIDAS

Función Suntracking.



FUNCIONALIDADES REQUERIDAS

Motor con encoder + motor controller.



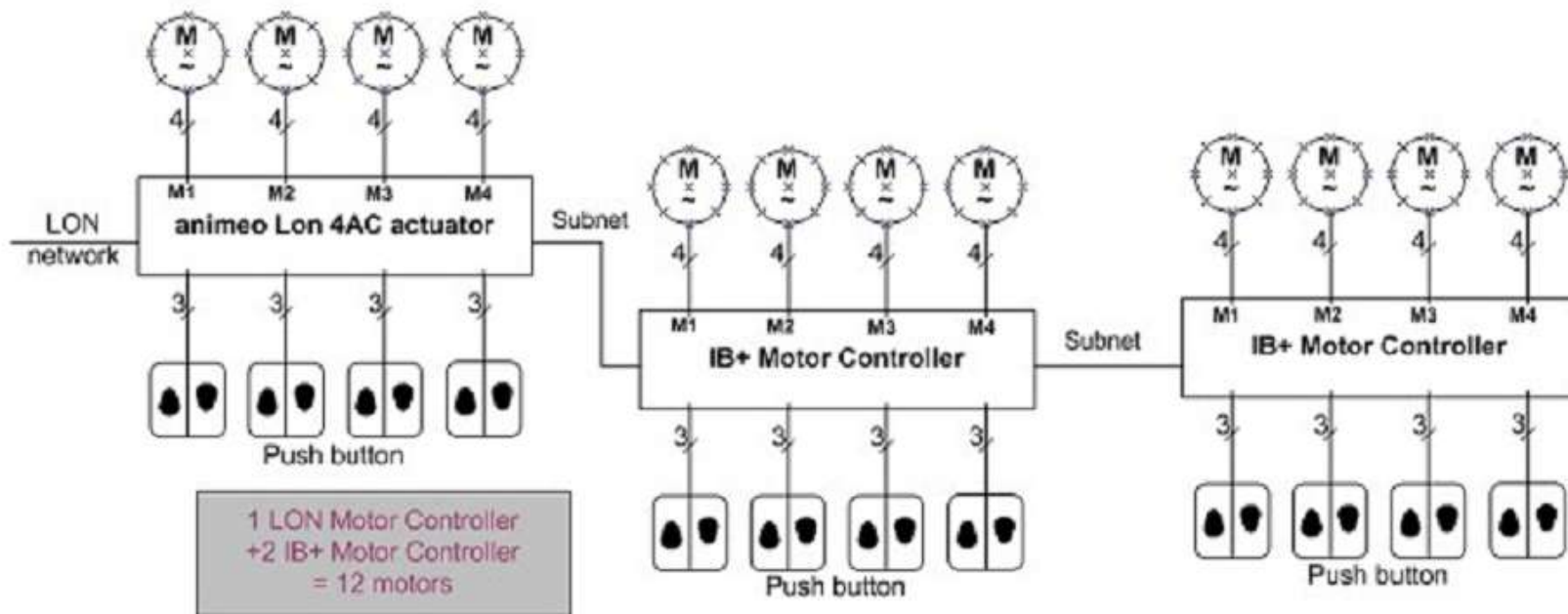
Motor controller Lon 4 DC / E



Motor controller 4 DC / E

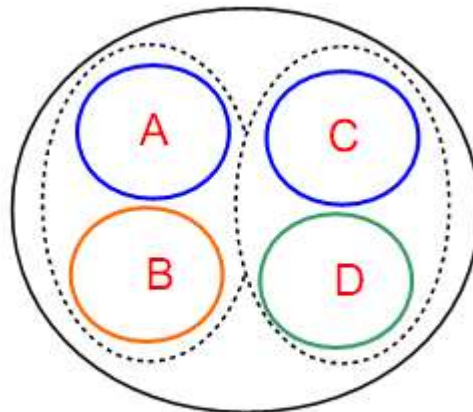


SUBRED LON SOMFY



SUBRED LON SOMFY

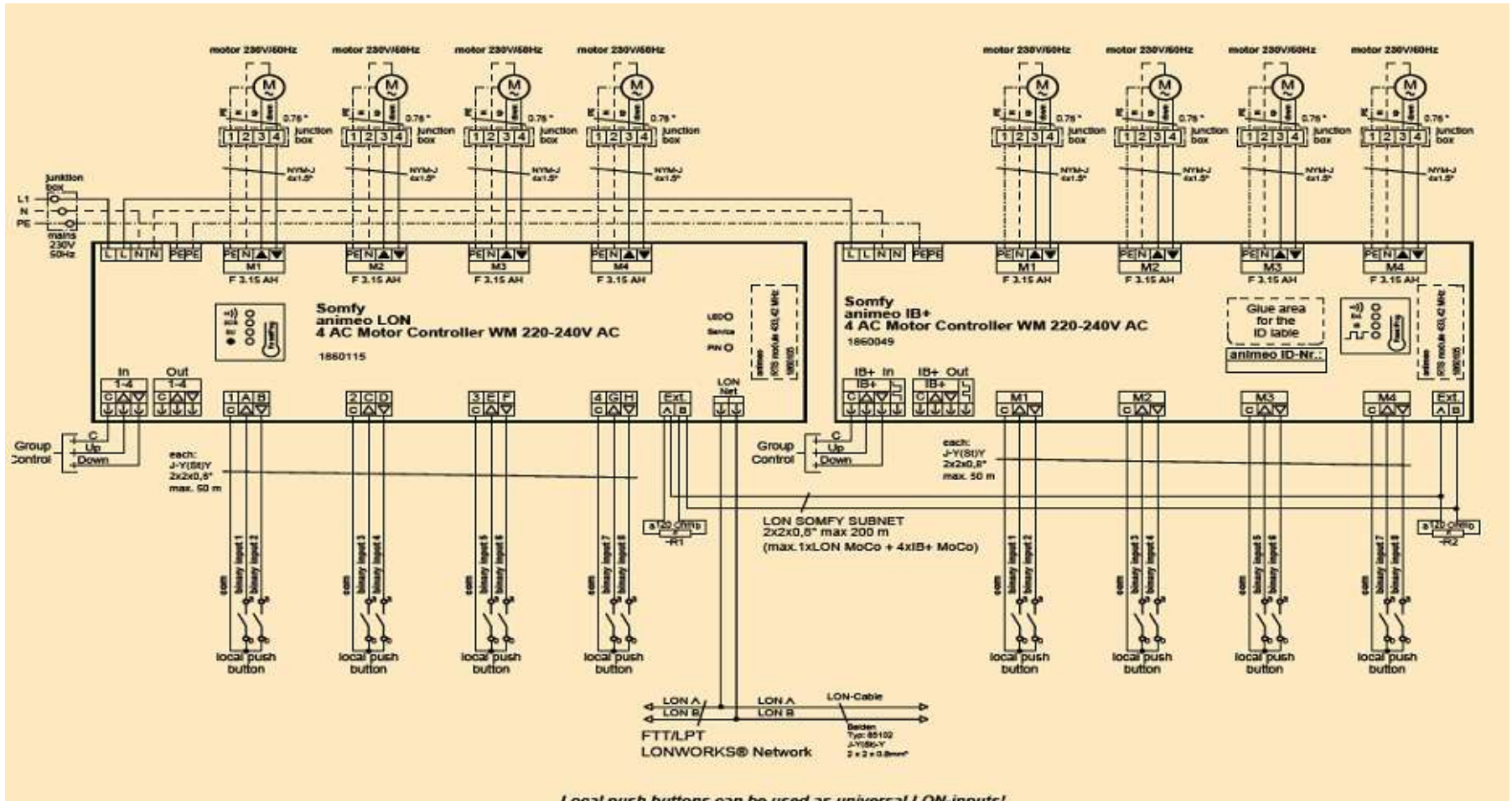
- La conexión de la subred se realiza por el conector Ext. A-B, puerto de comunicación RS 485.
- Bus de dos hilos con una longitud máxima de 200m.
- Usar par trenzado de 2x2x0.8 mm.
- Este bus debe cerrarse con dos resistencias de 120 Ohm.
- La fase de alimentación de los equipos debe ser la misma para todos los equipos.



Nunca usar C&B ni A&D



SUBRED LON SOMFY



REFERENCIAS

NEW BUILD

APPLICATION

Roller Blinds & Venetian Blinds

Project type:
New building

Date:
11/2010

Owner:
National Health Trust

Architect or Interior Designer:
HOK

Installer:
Skanska and TAC

Controls:
Somfy animeo Lon
Somfy animeo IB+



The Building

The blind controls formed a significant part of the project's strategy for passing the local building regulations, as they control the build-up of solar radiation. The system included sun tracking control, which was implemented by the TAC engineers using the Somfy animeo LON motor controller.

Somfy solutions

Somfy animeo LON 4AC motor controllers were used, due to the fact that TAC was supplying the BMS, which used a LON network. It was obvious that using the Somfy LON system would be ideal for this building.

Benefits of Somfy solutions

The Somfy solution's open-bus system suited the Skanska and TAC system design. The solution proposed by Somfy was also compatible with the BMS supplied by TAC.

SOMFY



Somfy España tiene 6 delegaciones para poder asegurar soporte al profesional **Antes, Durante y Después** del Proyecto

www.somfy-architecture.com

www.somfy.es



Gracias por su atención

Alex Català – Soporte Técnico CBS

Somfy España S.A