animeo® IP

Automated Total
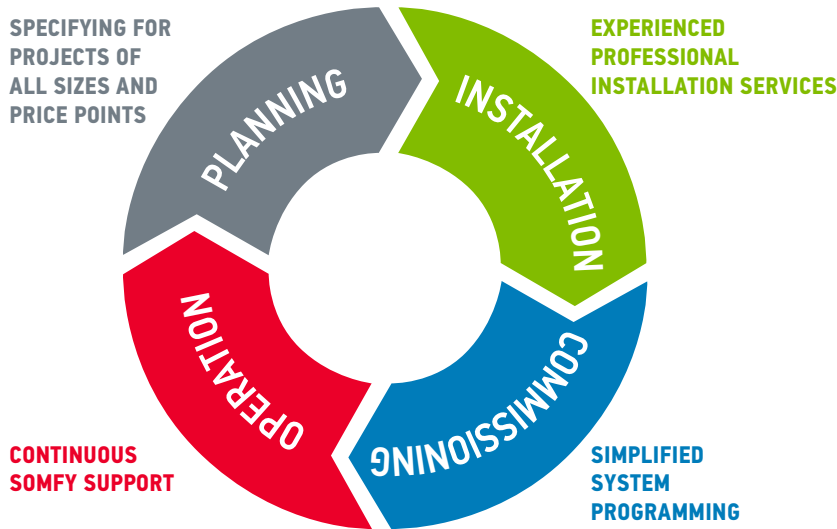# Solar Management

Introduction

SOMFY®️ is the leading global manufacturer of strong, quiet motors with electronic and app controls for interior and exterior window coverings. Over 270 million users worldwide enjoy the more than 150 million motors produced by Somfy. During the past 40+ years, Somfy engineers have designed products for both the commercial and residential markets to motorize window coverings such as interior shades, wood blinds, draperies, awnings, rolling shutters, exterior solar screens and projection screens. Somfy motorization systems are easily integrated with security, HVAC and lighting systems providing total home or building automation.

Somfy's Commercial Building Solutions offer a wide range of intelligent motors and controls that optimize the utilization of natural light in your commercial workspace. Our systems are calibrated to maximize occupant comfort while enhancing the visual environment, minimize solar glare and heat gain, and provide UV protection. Somfy's natural light control and automation systems are scalable in design; offered in low voltage, line voltage or wireless options; and are perfect for projects of any size or budget. Somfy's Commercial Specification team hold LEED®️ professional credentials and will support all aspects of any project, from specification through commissioning.

Working with you from specification to maintenance

Thousands of shade manufacturers around the world choose Somfy motors to bring their natural light control products to life. Somfy's nationwide Commercial Specification Team will work with you to find the right manufacturer and support your project every step of the way.

SPECIFYING FOR PROJECTS OF ALL SIZES AND PRICE POINTS

PLANNING

INSTALLATION

EXPERIENCED PROFESSIONAL INSTALLATION SERVICES

COMMISSIONING

SIMPLIFIED SYSTEM PROGRAMMING

OPERATION

CONTINUOUS SOMFY SUPPORT

OFFICES

EDUCATION

HOSPITALITY

Vdara

HEALTHCARE

Introducing animeo® IP

animeo® IP is a total natural light management system utilizing Somfy-powered intelligent motorized window coverings as well as digital keypads and weather sensors. The system's controllers, sensors and keypads can be added to both new and existing Somfy Digital Network™ (SDN) motor installations for comprehensive solar management as either a stand-alone solution or integrated into third party control systems.

An intuitive user interface allows for simplified commissioning, building management and technical support featuring drag-and-drop programming, motor auto discovery, and at-a-glance real-time system status updates.

Somfy Digital Network RS485

animeo® IP Benefits

Creates an overall better work environment

Benefit	Building Owner	Architect	Facility Manager	Engineer	Occupant/Tenant
Energy Efficiency	• Reduce heat gain • Save on HVAC equipment costs	• Reduce heat gain and cooling loss • Wider selection of glazing options	• Reduce lighting and HVAC demand during occupied and unoccupied times	• Optimizes building performance	• Reduce the power consumption from artificial light
Scalability & Flexibility	• Improve building façade appearance • Reduce glare in work environment	• Solar Depth Entrance Management offers options for positioning workspaces	• Enter the distance between windows and work areas in animeo IP to manage solar depth entrance management	• Assist during design phases to create a productive and comfortable working environment	• Manage natural daylight • Minimize glare
Compatibility	• Easily add to existing SDN installations	• One system fits buildings of all sizes	• System functionality and operation remains simple for a single office or an entire building	• The system could support the functionality of multiple building types	• System easily adapts to the specific needs and requirements of the workspace
Comfort	• Reduces the complexity of automated solar shading solutions	• Simple to design, install and commission	• Easy to adjust functionality of motors or controls from Graphical User Interface • Control entire building from one computer	• System is simple to understand, design and build	• Override automatic control via in-wall keypads, virtual computer keypads and mobile devices
Building Certification	• Follow local building codes and requirements • Contribute towards earning LEED credits	• The Somfy Specification Team hold LEED professional credentials and provide support during the design phase	• Somfy supports LEED based design and commissioning for the system installed in your building	• Earn more LEED points during the design phase of a project	• LEED buildings show a higher occupant satisfaction in areas like perceived productivity, indoor air quality and thermal comfort.*

* U.S. Green Building Council, "The Business Case for Being Green." July 2012.

Benefits of animeo® IP

Energy Efficiency Scalability & Flexibility Compatibility Comfort Building Certification

Natural Light Management

Automatically managing motorized window coverings reduces dependency on artificial light, allowing more natural light for increased visual comfort of occupants as well as energy savings.

Manual shades are rarely adjusted thus reducing the daylight zone.

Automated shades increase the daylight zone, adjusting to the specific sky and weather conditions.

Extended Daylight Zone Automated Shades

A **daylight zone** is an area within a building that is expected to receive consistent daylight.
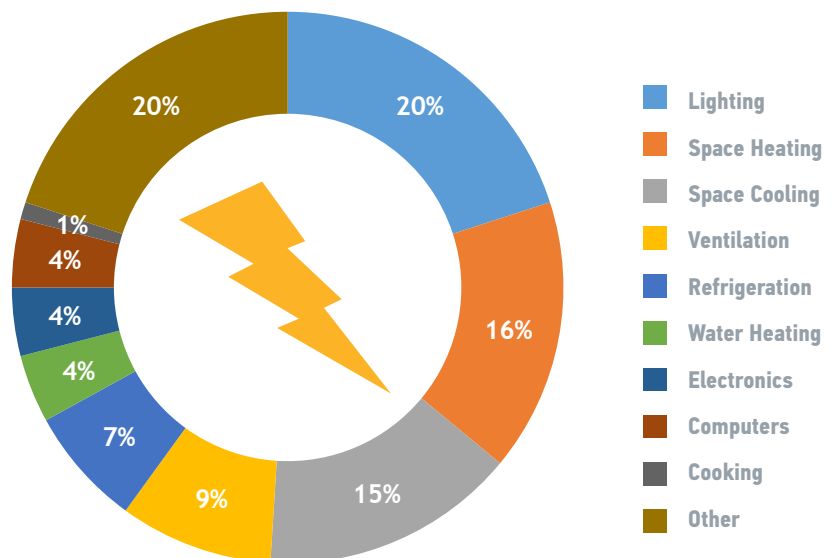

Energy savings

Capturing Natural Light Saves Energy

Commercial Buildings Primary Energy End Use Splits

20% of energy end usage in a typical office building is spent on lighting. Automated solar control management can use natural light to reduce the requirement for artificial lighting and ensure solar gains for passive room heating.

DOE, 2011 Buildings Energy Data Book, Section 3.1.4, March 2012. http://buildingsdatabook.eren.doe.gov/)

Energy usage varies based on geographical locations.

- Lighting — 20%
- Space Heating — 16%
- Space Cooling — 15%
- Ventilation — 9%
- Refrigeration — 7%
- Water Heating — 4%
- Electronics — 4%
- Computers — 4%
- Cooking — 1%
- Other — 20%

Dynamic Insulation™

Automated window coverings are raised and lowered according to changes in outdoor weather conditions and indoor comfort needs based on input from sensors, pre-programmed settings, or local occupant controls.
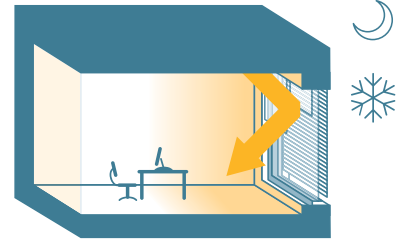
And with animeo® IP's sun sensor functions, the process is automated to ensure the reality of energy savings.

Summer strategy

Lower window coverings during the hottest part of the day to reduce heat gain.
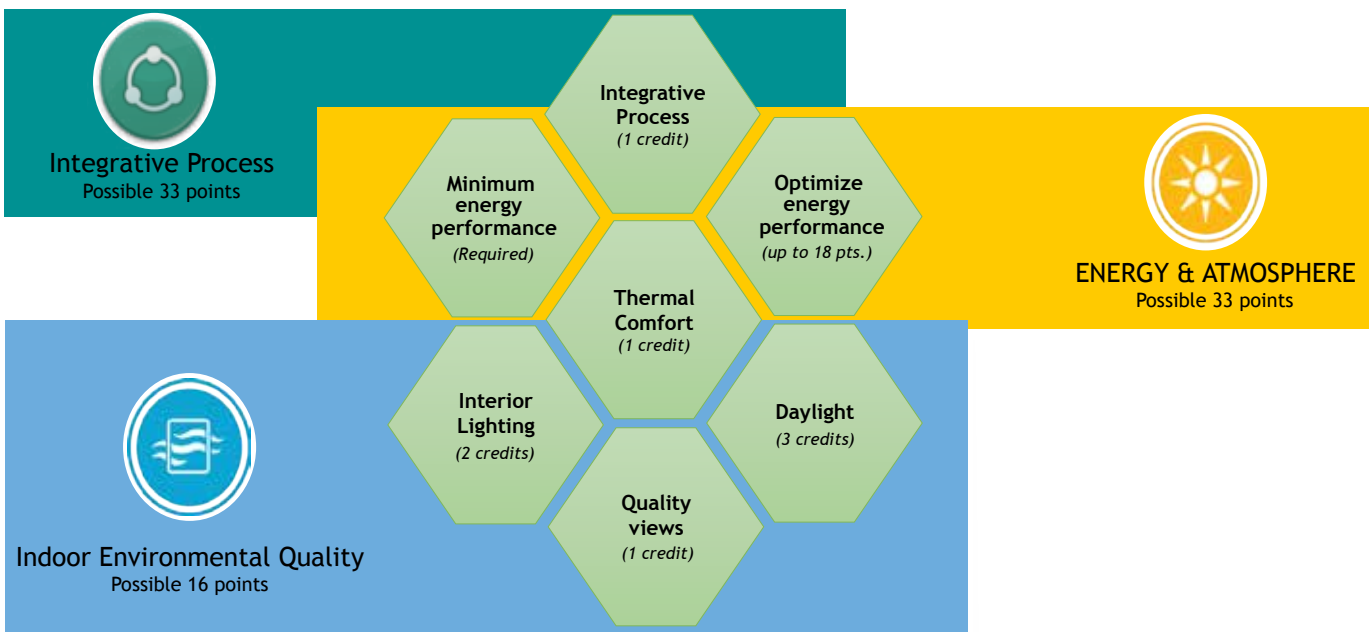
Winter strategy

Lowered window coverings prevent heat loss through windows during nighttime hours.

Earn LEED® Credits

Somfy is one of your key partners for LEED certification. Somfy solutions, including building control with animeo® IP, provide the opportunity to obtain multiple LEED points using a holistic approach.

Automation in commercial buildings contributes to earning LEED points in the following categories:

Integrative Process
Possible 33 points

ENERGY & ATMOSPHERE
Possible 33 points

Indoor Environmental Quality
Possible 16 points

Integrative Process
(1 credit)

Minimum energy performance
(Required)

Optimize energy performance
(up to 18 pts.)

Thermal Comfort
(1 credit)

Interior Lighting
(2 credits)

Daylight
(3 credits)

Quality views
(1 credit)

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Meeting the Challenge: Why animeo® IP?

animeo® IP System Features

Sun sensor control

animeo IP offers automated natural light management based on the sun's position in the sky and façade orientation to minimize glare and maximize the opportunity for capturing natural light.

Solar Entrance Depth Management

During active sun tracking periods, animeo IP's Solar Entrance Depth Management feature will adjust and maintain the solar shade height to limit the distance that sunlight enters the space. This results in the ability to protect furnishings, maximize daylight availability and minimize glare on workspaces to improve occupant comfort.

Control Versatility

Programmable wall-mounted keypads, wireless controls and virtual keypads provide occupants control over nearby window coverings. animeo IP can override manual occupant commands during specific time periods (ex: east façade from 8 AM - 12 PM) to keep the building running as efficiently as possible, providing just the right balance of manual and automated control.

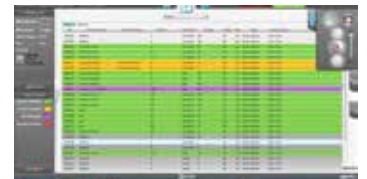Facility Manager View   animeo® IP Digital Keypad   Virtual Keypads

Compatibility

animeo IP is compatible with existing SDN installations, at any point in system design, including external weather sensors, in-wall keypads, wireless sensors, and third party building management systems.

Somfy Digital Network RS485

Sonesse® 30 RS485   Sonesse® ULTRA 50 AC RS485

Sonesse® ULTRA 50 DC RS485

Facility Management

SDN technology provides bi-directional status reporting of window covering positions. With this information, animeo IP exports system status snapshots in convenient graph or table form. Quickly see how and why shades were adjusted with simple color codes for timed events, occupant actions or building overrides. Facility managers can also receive systems alerts via email.

Streamlined Commissioning Process

Auto-discovery of motors and switches expedites installation while drag-and-drop configuration simplifies commissioning.

Real and Astronomic Timed Events

With animeo IP's timed events feature, schedules can be created to keep buildings energy efficient based on certain times of day. Creating timed events around periods of high occupancy (between 8:00AM and 6:00PM, Monday through Friday) and low occupancy (weekends, holidays) ensures the building is running as efficiently as possible.

Sensors

A variety of Somfy weather sensors are compatible with animeo IP, including rain, wind, sun and temperature sensors. Sensor configuration and setup is easy using animeo IP's intuitive user interface.

Compact Sensor

Sensor Station

What animeo® IP Can Do for Your Project

animeo IP is a hardware and software solution that combines configuration and control software in one comprehensive package. By managing a full range of intelligent motors from a single source, animeo IP presents a stronger, more customizable solution that meets today's requirements for building certification while increasing occupant comfort.

animeo IP performs in installations across all vertical market segments including Offices, Hospitality, Education and Healthcare.

Flexible and Scalable

animeo IP maximizes the performance of Somfy Digital Network solutions by adding a main Building Controller and client software with an intuitive graphic user interface. Sub Controllers increase system capacity to meet project requirements. The animeo IP range also includes sun, wind and temperature sensors which optimize natural elements for increased occupant comfort and energy efficiency.

Somfy Digital Network RS485

SYSTEM CONFIGURATION	STAND ALONE	animeo® IP
Supports Somfy AC and DC Intelligent Motors	✓	✓
Wired and Wireless Controls	✓	✓
Time Scheduled Events	✓	✓
Integrate with BMS Systems	✓	✓
Scalability	✓	✓
Sun Sensor Monitoring		✓
Solar Entrance Depth Management		✓
Virtual Keypads		✓
Remote Access		✓
Complete Weather Sensor Station		✓
Sensor Weather Station		✓
Graphical System Status and Position Updates		✓
Configuration with Auto-Discovery		✓

Somfy's Scalable Solutions

animeo® IP leverages the reliability and scalability of Somfy Digital Network™ (SDN) technology while adding the benefits of automation and simplified, centralized control.
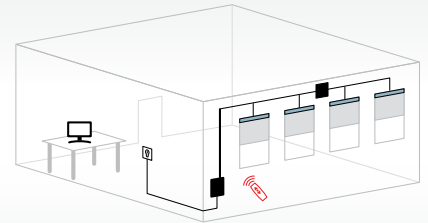
Below is an example of how scalable Somfy solutions are. From a single room, to individual floors or rooms, to an entire building, animeo® IP and Somfy Digital Network™ (SDN) installations are suitable for every jobsite.
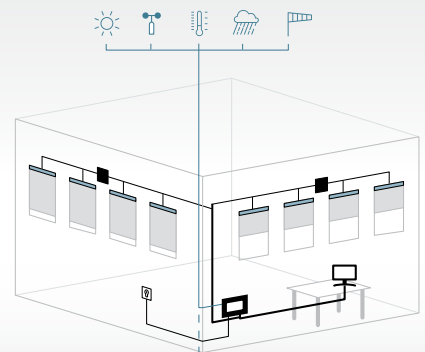
Single Room

For smaller installations, a standard Somfy Digital Network installation is a powerful yet economical solution. Local controls, including Somfy's full range of wired and wireless controls, can be added for convenient access.

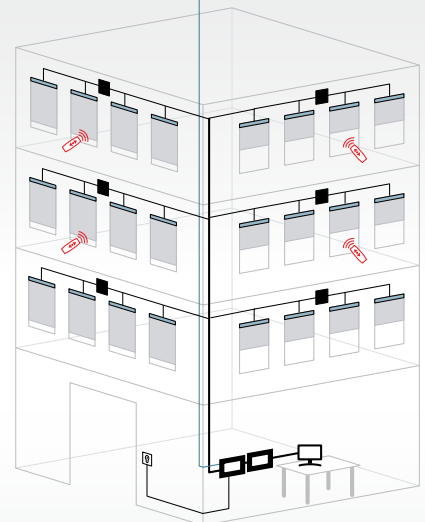## Individual Floor

animeo® IP Building Controller

To automate up to 200 motorized shades based on sun, wind, temperature and rain thresholds, incorporate animeo IP into a Somfy Digital Network installation for the next level of control. animeo IP uses a dedicated range of sensors as well as schedules for automated solar management while still allowing occupants to make adjustments using in-wall keypads or virtual keypads. The system's graphic user interface simplifies commissioning, operation and troubleshooting.

Multiple Floors or Entire Building

animeo® IP Sub Controller

animeo® IP Sub Controller

For installations greater than 200 motors, add animeo IP Sub Controllers to expand system capacity (1 for every additional 200 motors). The scalable technology of both Somfy Digital Network and animeo IP make them ideal solutions for larger installations where centralized control is a necessity. animeo IP can also be integrated into third party BMS, EMS and AV systems.

SDN 2.0 products are backed by a SDN 2.0 Certified Quality Promise which means these products have been designed to meet the highest standards for Somfy Digital Network system components and validated by Somfy engineers. Systems designed using SDN 2.0 certified products are easier to install, more reliable, and improve overall system performance.
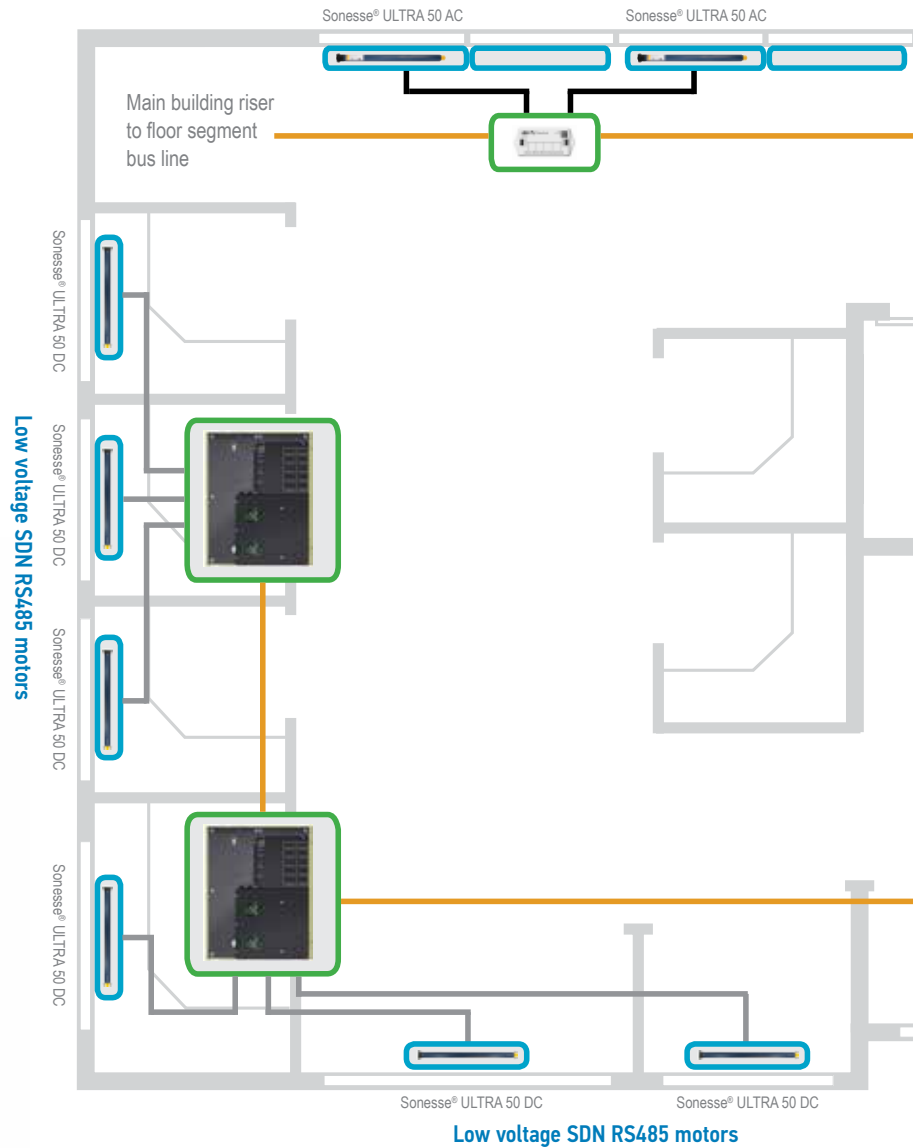
Power Panel

- Low voltage transformer (24V DC)
- Provides power and data over a 14 AWG power pair, 22 AWG stranded, twisted and shielded data triad with a 24 AWG drain wire
- Ability to connect user interfaces
- Provides motor power using the Somfy Low Voltage Motor Cable offered through Liberty AV. (Model 9020126 or 9020127)

Powered by standard outlet or junction box

Line and Low Voltage

Line voltage SDN RS485 motors
(Optional coupled/banding application)

Sonesse® ULTRA 50 AC   Sonesse® ULTRA 50 AC

Main building riser to floor segment bus line

Sonesse® ULTRA 50 DC

Sonesse® ULTRA 50 DC

Low voltage SDN RS485 motors

Sonesse® ULTRA 50 DC

Sonesse® ULTRA 50 DC

Sonesse® ULTRA 50 DC   Sonesse® ULTRA 50 DC

Low voltage SDN RS485 motors
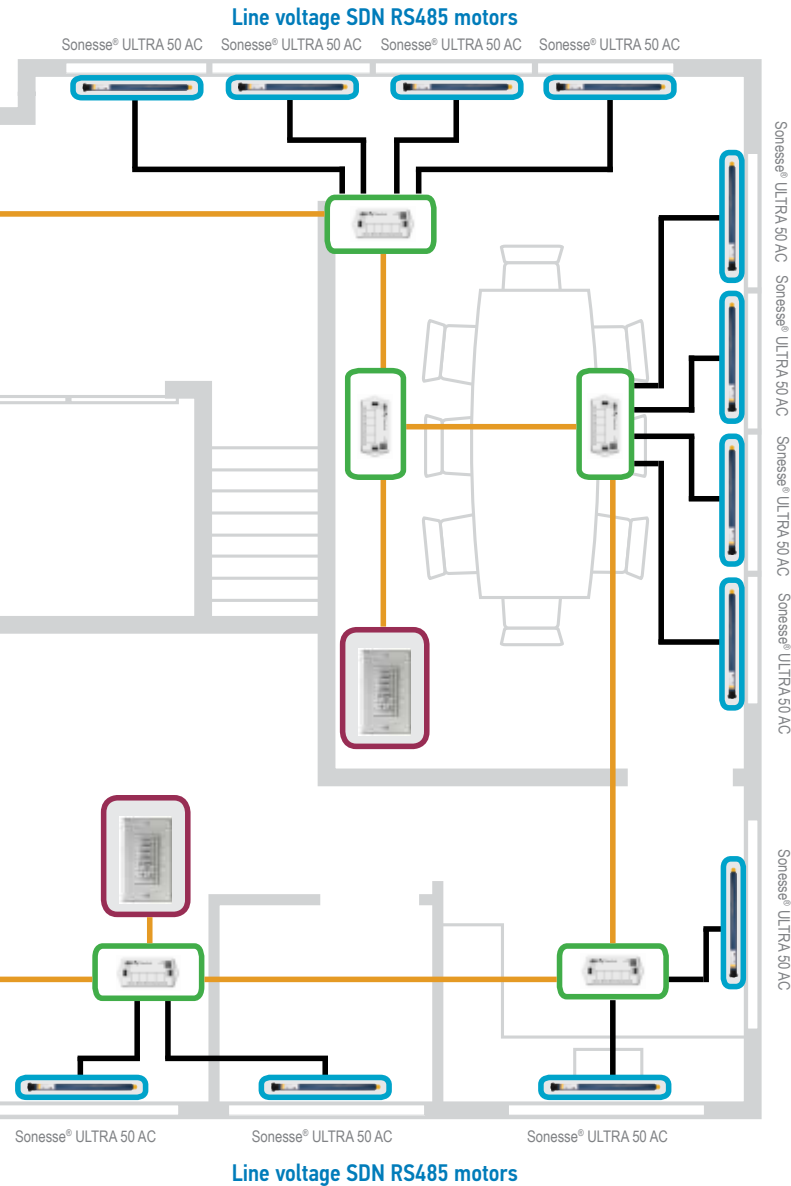
RTS Receiver for SDN	RTS Transmitter	Digital Keypad	Virtual Keypad

- Fully programmable
- Individual motor and group motor functionality
- Up to 5 preset positions and full Up, Stop, Down functionality

Somfy's line and low voltage solutions featuring the intelligent Sonesse® 50 and Sonesse® 30 motor lines offer ultra-quiet operation along with greater strength and quality than other motor options offered by industry competitors. Somfy's line and low voltage motors and controls are a stand alone solution, or can communicate as an automated building network using animeo® IP, providing the most flexible complete network solution available.

Line voltage SDN RS485 motors

Sonesse® ULTRA 50 AC   Sonesse® ULTRA 50 AC   Sonesse® ULTRA 50 AC   Sonesse® ULTRA 50 AC

Sonesse® ULTRA 50 AC
Sonesse® ULTRA 50 AC
Sonesse® ULTRA 50 AC
Sonesse® ULTRA 50 AC
Sonesse® ULTRA 50 AC

Line voltage SDN RS485 motors

Sonesse® ULTRA 50 AC   Sonesse® ULTRA 50 AC   Sonesse® ULTRA 50 AC

Line voltage SDN RS485 motors

Sonesse® ULTRA 50 DC RS485   Low voltage motor (24V DC)

- Ultra quiet operation
- Ultra powerful operation
- Wide range of control options
- Fully programmable
- Power and data connection from the bus line

Powered by the Power Panel for SDN or a standard outlet using a plug in power supply

animeo® IP

- Provides connection from the Somfy Digital Network™ (SDN) to the building network
  Can be placed anywhere in the building

Powered by standard outlet or junction box

Sonesse® ULTRA 50 AC RS485   Line voltage motor (120V AC)

- Ultra quiet operation
- Ultra powerful operation
- Wide range of control options
- Fully programmable

Powered by standard outlet or junction box

Use the Somfy Low-voltage Motor Cable offered through Liberty AV for all low-voltage SDN motor installations

4 Conduit 26AWG modular cable with RJ9 and an RJ45 connector for Sonesse® 50 motor wiring

BUS LINE

MOTOR

BUS DISTRIBUTION

USER INTERFACE

5 Port Data Hub and Data Hub Plus   Power Panel   Data Panel

- Allows digital communication from the bus line to controls and line voltage (AC) motors.
- Increase motor connections along the bus line.

Intuitive Graphic User Interface

A standout feature of animeo® IP is its graphic user interface. There are four main system views: Façade, Group, List and Floor Plan. The Floor Plan view offers facility managers a dynamic snapshot of system status and indicators in an easy-to-understand floor plan format as well as convenient access to controls and critical system information.

Floor Plan View

Easily access other floors

Switch between multiple views

Right click keypads to emulate user commands for convenient troubleshooting

Scale and zoom

Master keypad for facility manager control of façades, zones or individual motors

Real-time information from weather sensors

Weather forecast information

System errors and notifications

Hover over motors or keypads to view detailed information including associated devices

Color-coded motor statuses
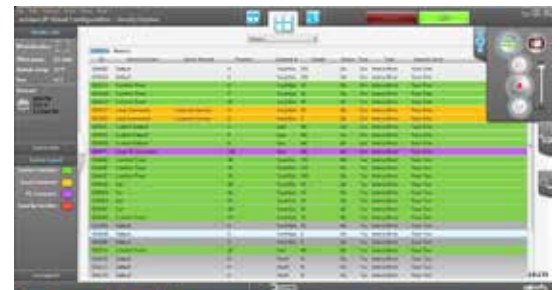
Façade View

Graphical representation of building exterior

Group View

Conceptualized view of groups that make up the system

List View

Sortable database of system states

Other System Interface Options

The following examples demonstrate other key features of the user interface that also simplify commissioning, operation and troubleshooting.

Timer Configuration

Schedules based on animeo® IP's real-time and astronomic clocks are easy to configure. Proper configuration is guaranteed with a simplified interface and color coded confirmation.

Choose from preset time periods to create customized timers

Green means there are no conflicts, red means actions are overlapping

Virtual Keypads

Both facility managers and occupants have access to virtual keypads from their PCs, laptops, tablets or smartphones connected to the site's LAN for convenient local control.

Facility Manager View   **Occupant View**

Access system presets like Openness levels and Energy Savings Mode

Up, Down and Stop commands

Slider for customized settings

Slider for customized settings

Up, Down and Stop commands

Sun Tracking

animeo IP uses input from sun sensors to effectively automate solar shading. By compiling data from sun sensors, animeo IP can log historical light and temperature values to aid in the creation of more efficient energy management and glare reduction settings.

Drag-and-Drop Configuration

Easily make adjustments to the system at any time with intuitive drag-and-drop organization of motors and sensors.

Drag and drop motors from one zone to another

animeo® IP Product Line

CONTROLLERS

animeo® IP Building Controller   #1822314

The animeo IP Building Controller features a sophisticated graphical user interface and built-in software applications for managing scheduled events, sun tracking, and virtual web-based keypads. An animeo IP Building Controller is required for every animeo IP installation. For larger animeo IP systems (over 200 motors), animeo IP Sub Controllers must be used.

animeo® IP Sub Controller   #1860201

The animeo IP Sub Controller expands the system's capacity beyond the initial 200 motors supported by the animeo IP Building Controller. Each additional Sub Controller supports 200 motors.

www.somfysystems.com/animeo-ip

MOTORS

Low Voltage Intelligent Motors

Sonesse® 30

Sonesse® ULTRA 50

Somfy's low voltage intelligent motors are available in both quiet and ultra-quiet Sonesse® versions. Both require 24V DC power. Torque ranges from 2Nm-4Nm.
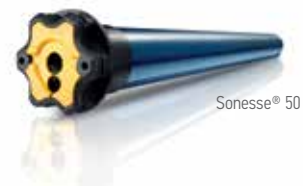
Line Voltage Intelligent Motors

Sonesse® 50

Somfy's line voltage intelligent motors are available in both quiet and ultra-quiet Sonesse® versions. Both require 110V AC power. Torque ranges from 4Nm-35Nm.

www.somfysystems.com/motors

SENSORS

Sensor Station   #9013726

The Sensor Station consists of an aluminum mast with pre-mounted and pre-wired outside sensor box, 4 sun sensors, wind sensor and an outside temperature sensor, and can be equipped with additional sensors.

Compact Sensor   #9015047

The Compact Sensor consist of 3 sun sensors which can be oriented to East, South and West, as well as a wind sensor, outside temperature sensor and rain sensor.

www.somfysystems.com/animeo_sensors

USER INTERFACES

DecoFlex Keypads

DecoFlex Keypads provide an in-wall user interface for animeo® IP. The Keypad offers users a familiar way to adjust their environment for personal comfort without affecting the overall efficiency of the building. Available in both wired and wireless options.

RTS Receiver for SDN   #1822294

The RTS Receiver for SDN connects directly to the SDN bus and is fully compatible with all RTS transmitters. Control up to 5 groups of motors on the network using an RTS transmitter. The Receiver obtains its power directly from the bus — no external power required.

www.somfysystems.com/animeo-ip-user-interfaces

BUS POWER & DISTRIBUTION

Bus and Sensor Station Power Supply   #1822440

The Somfy Bus and Sensor Station Power Supply provides 24V DC power to the SDN bus. Each Power Supply can provide power to up to 100 bus line devices (excluding motors).

24V DC Power/Control Distribution Panels

Power/Control Distribution Panels supply power and communication to Sonesse® low voltage motors. Available in a 10 motor configuration.

www.somfysystems.com/sdn-2-0

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150 MILLION motors

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