

SWFcontract™

**SWFcontract
Solar Shading Systems
Lexicon**

- Manual Solar Shades
- Motorized Solar Shade

Shade Word	Definition
Animeo® IB+	is a four motor controller with individual control of each device. Complete automation solution for controlling motorized solar protection for office buildings, hospitals, education buildings, hotels and entertainment centers. An easy to program building controller receives data and communicates this information to specific zone controllers. This allows the automated operation of the solar shades according to the initial strategy of building performance goals, which are selected by the facility manager.
Batten	is a thin horizontal strip of solid material enclosed in a heat-welded pocket, used to prevent the fabric from curling or sagging on large or narrow shades. The shade can be designed so the battens strategically align with horizontal mullions. A visible seam is created where the panels are heat-welded together.
Bus line	is a set of 2 or more electrical conductors that serve as common connections between load circuits and each of the (AC or DC) sources of electrical power.
CAT5e/6/6a/7	is an insulated cable, often referred to as “structured cable” traditionally used for transmitting digital data communication in applications such as telephone, video, Ethernet and networking which can eliminate interferences from surrounding power lines.
Coupled shades	are two or more individual shades connected by a coupler and operated by a single clutch or motor.
Clutch	is the mechanism that manually controls the raising and lowering of the solar shade with a #10 stainless steel bead chain.
Daisy chain wiring	is a wiring scheme in which the power or data lines for multiple devices are wired together in sequence or in a ring.
Dry contact	is a 3- wire contact or switch using normally open (NO), normally closed(NC) and a common (C) that closes or opens a connection by an external source, not having a voltage source itself.
Dual shades	are two individually operated shades built onto one bracket and utilize both blackout to the rear and mesh fabric to the front. This is optional for manual and motorized shades.
Edge gap	is the distance between the vertical edge of the fabric panel and the vertical line of the outside edge of the bracket.
Fabric wrapped hem bar	is an elliptical-shaped aluminum extrusion wrapped with solar fabric on the room side with a painted or anodized finish on the window side.
Fascia	is an extruded aluminum snap-on cover designed to hide the roller tube and mounting hardware from view.
Finished shade width	is the measurements from the outside of the left bracket to the outside of the right bracket and will be equal to the width ordered.
Group controller	is a device for operating three or more shades controlled by one switch.
Group Control System	(GCS-II) provides low voltage control up to four (4) motors with one or more switches, from one or more locations. The GCS-II offers group control and does not have the capability of operating each motor individually. For applications requiring more than 4 motors operated by the same switch, the GCS-II can be daisy-chained by way of the low voltage switch terminals.
Heat-welding	utilizes ultrasonic technology that permanently fuses the fabric together.
Hem bar	is a flat aluminum extrusion completely enclosed in a hem pocket with heat-welded seams.
Idler end	is the mechanism located on the opposite end of the tube from the clutch or motor.

Shade Word	Definition
Individual control	is one to two shades controlled by one switch.
Individual-Group Control II	(IGC and IGC/3N1 – X10 Compatible) provides control of one or more motors in groups and / or individually from one or more locations and can be activated manually or automatically. The heart of the system is the IGC Motor Controller used for each motor. The IGC/3N1 version is used for those systems that require controlling at least 3 motors individually or in groups. It is equipped with a dry contact input for interfacing.
Intelligent motor systems	are addressable systems which can be operated individually, as a group, or in combination and can be integrated with a building management system. Each motor has a separate plug-in cable allowing easy expansion of the system without rewiring.
Interface device	refers to a secondary translator between two units of separate protocols, whether dry contact, RS232/485 or Ethernet.
Lift assist	is a heavy-duty torsion spring located inside the roller tube and designed to reduce the pull force allowing easy lifting of larger clutch operated shades.
Manual shade	is operated by a chain controlled clutch mechanism.
Motorized shade	is operated by a single electric motor.
Node	is a term for devices that may be connected together in a network, that communicate with each other via serial language. (Only in a RS485 protocol)
OccuSwitch	is a Philips occupancy sensor to a RTS motor intelligent plug-in interface. This device controls lights and window shades “wirelessly” so when the lights are turned “off” then the shades are “lowered” when a space is unoccupied. Significantly reduces costs associated with lighting and air conditioning.
Openness factor	is the percentage of light transmitted to the interior through the shade fabric. As an example, a 5% open fabric allows 5% of the UV rays to pass through the fabric while blocking 95%.
Pocket	is an extruded aluminum or formed steel system designed to house the shade when installed above the ceiling.
Pocket closure plate	is an extruded aluminum, removable bottom plate that integrates into the pocket system hiding the roller tube and mounting hardware from view.
Protocol	<p>is a system of digital message formats and rules for exchanging data between digital components. OR Protocol is a method or set of specifications that allow devices to speak to each other using a common language such as serial communication or Ethernet. Manufacturers use their commands written using the serial code set.</p> <ul style="list-style-type: none"> ▪ BACnet IP Interface is used for commercial building automation protocol. Its use enables communication between all systems in a building. It is a device used to communicate between a BACnet IP device and others. BACnet IP is a data communication protocol for building automation and control networks developed under the guides of the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE). ▪ Modbus IP Interface is a device used to communicate between a Modbus IP device and other devices. Modbus IP is a messaging structure used to establish master-slave/client-server communication between intelligent devices. This protocol is used in industrial, building, infrastructure, transportation and energy applications.

Shade Word	Definition
Railroading	is required when the width of the window opening exceeds the maximum fabric width. The fabric is turned 90° and if needed heat-welded together to fit the height of the window.
Regular roll	is standard orientation allowing the shade fabric to drop from the backside of the tube closest to the window.
Reverse roll	is optional orientation allowing the shade fabric to drop from the front side of the tube closest to the room.
RJ9 3-way Splitter	is used to split one modular plug (phone type) into 3 or 6. Usually use for tapping multiple devices (shades for an example) off one connector and used also for adding them to a communication bus line.
RTS (Altus) motor	is operated by a radio-controlled remote or radio controlled wall switch.
Seams	are used when window width and height exceed the maximum fabric width. A visible seam is created where the panels are heat-welded together to fulfill the size requirement of the shade.
Serial communication	<ul style="list-style-type: none"> ▪ RS232 is a form of 3-wire serial communication between a motor interface and a control device. RS232 is limited to roughly 50 feet and under between devices. At a maximum speed of 20 kbps. ▪ RS485 is an updated US standard serial communication, designed to allow multiple devices to speak to one another (a method often referred to as multi-port or multi-point) over a distance, not greater than 4,000 feet. You can extend the distance of an RS485 signal by an additional 4,000 feet by using a “segment bridge” or “RS485 repeater”. ▪ RS232 and RS485 and serial control are used interchangeably. They are a language used by automation systems to control other devices. Most devices, i.e.: shades, can all be controlled through this language, but often can use as a 2-way communication (must be 3-wire or 4-wire) link to provide feedback as to the “state” of the device. For example: If you send a command to a shade from somewhere in the system through an automation system and ask the shade to lower to 50% it issues the command, and then the shade sends back the information as to where it is. Like, “I was 25% down...now I’m at 50% down”.
Serial to Ethernet Gateways	is a piece of hardware similar to a computer router that allows serial communication (RS-232/RS-485/RS-422) over a computer network/ Ethernet. This allows control of devices over a much longer distance without converting to RS485.
Shading coefficient	represents the percentage of solar heat gain that is transmitted to the interior through the glass and window covering.
Shield cable	is a type of communication wire that is shield/wrapped with aluminum to prevent outside interferences.
Side channels	are extruded aluminum channels mounted to the window jamb and designed to eliminate light leakage.
Sill channel	is an extruded aluminum channel mounted to the windowsill and designed to eliminate light leakage.
Smart switches	are a 3-button or 6-button control device which outputs the SDN protocol over RS-485, providing digital control of intelligent motors. The smart switch is addressable and configurable to operate individual motors and groups of motors to a programmed command.
Spline system	is a PVC spline heat-welded to the shade fabric and inserted in a channel on the roller tube allowing for ease in changing fabric.
Telescoping	refers to the fabric moving from left to right of center as the shade is raised and lowered. This can occur if the shade was not properly leveled during installation or if the length of the shade is significantly greater than the width.
Transformers	convert 120V AC to operate 12V/24V DC motors.
Twisted pair	is a method of configuring 2 conductor wires wound together used in “category type cable” (CAT5e/6/6a/7), to prevent electromagnetic interference or “noise on the line”, an issue which can reduce signal strength from neighboring pairs.
X10	is an older technology that communicates through switches and outlets using electrical wiring as the means of communication. It's very simplistic and has been used for years.