All connections between Somfy™ Power Panels and the blind motors are w/ 24V Sonesse® Ultra 30 Power & RS 485 Data Cables in a parallel configuration w/ One (1) cable per motor / blind unit. Each cable contains 2 strands of 14 ga wire to supply 24V DC power to the blind motors, and a bundle of RS-485 wires for data / signal transfer to and from the blind motors.

All connection between Somfy™ Data Panels and Somfy™ Power Panels are w/ Cat 5e Networking data cables in a daisy chain configuration. In some configurations, the Somfy™ Data Panels can be replaced with a Somfy™ Bus Power Supply or be omitted altogether.

All connections between Somfy™ Power Panels and Somfy™ Key Pads are w/ Cat 5e Networking data cables.

Each Somfy™ Power Panel can accommodate 2 devices (Key Pads, RTS Receiver, SDX Hub, etc.). Should more than 2 devices (key pads) be required, a SDX hub must be used to expand the device capacity of the Somfy™ Power Panel. If SDX data Hubs are used, they will be housed within the Somfy™ Power Panel.

The Somfy™ Power Panel must be located within 240 ft direct distance to the furthest shade it powers. The Somfy™ Power Panel only provides 24V DC power for the shade motors. It does not energize the RS485 Bus Line side of the system / network. The Key Pads must be located within 200 ft from the Somfy™ Power Panel.

The Somfy™ Somfy™ Key Pads** should be located within the same room as the shades they control. Wireless Control of the shades is possible via an RTS receiver or in an Internet Control Interface.

The Somfy™ Somfy™ Data Panel can be located anywhere* within the building.

If the Shades will not to be connected to the Building’s Lighting or Building Management System, a Somfy™ Data Panel is not required, but the system will require a Bus Power Supply at each Somfy™ Power Panel to power the communications side between Somfy™ Power Panel, Somfy™ Shade Motors and the Key Pad(s).

Installations with Solar powered RTS shade motors or Zigby™ shade motors do not require a set of ladder diagram and line diagram drawings since these devices are not designed to be networked into an SDN system. Also, such an installation is not be suitable for integration into a Building Managment System (BMS) or Building Automation System (BAS).

* Power consumption of data cable runs is cumulative and limited to 4000ft max per Somfy™ Data Panel.

** The Somfy™ Key Pads require a 3-1/2" Deep Gang Box.
Symbols used on WINCO Floor Plans, Ladder Diagrams & Line Drawings for Transira® Accessory Sash equipped windows.

Architectural Opening ID

Somfy Power Panel ID

Key Pad ID

WINCO Unit ID & WINCO Sheet No.

Somfy™ Power Panel

C101

120V/20A

Somfy™ Key Pad

Standard Switch Plate Cover

(Not furnished by WINCO)

Group of Shades supplied by Power Panel (Proprietary Cable)

Ultra 30 RS485 Control Cable % Shade(s)

Cat 5e Network Data Cable (A number of colors are commercially available)
Runs between Data & Power Panels, Key Pads and additional network devices

Cat 5e Network Cables w/ RJ45 plug(s)

Somfy Data Panel

Signal 1

Signal 2

Signal 3

Signal 4

Riser IN

Riser Out

Up to 4 circuit with Power Panels (4,000 ft total cable length)

Riser In/Out to connect additional Data Panels in different building areas

Bus Power Supply is typically connected thru the Power Panel, but can be located anywhere within the cat5e cable run between the Power Panel and the Key Pad(s) and other devices.

Cat 5e Network Cables w/ RJ45 plug(s)

Somfy Bus Power Supply

SDN Output / pass through

SDN Input / pass through

110V - 120V 60Hz 15A

24V DC Power & Control Cable
(cable color = Yellow, no choice available)

Sonesse® Ultra 30 RS485

Runs between Power Panel(s) and Shade Motors

While WINCO Line Drawings will indicate the general location of Somfy™ Data Panels, Somfy™ Power Panels, Key Pads, etc. by Room Number, the actual position within the room for the depicted components must be clearly indicated during the drawings review process by the Architect or other Building Owner's representative, or the electrical contractor will be at liberty for choosing the most appropriate / convenient installation spot.

The cable runs indicated on WINCO's plans show which cable type is used to connect the individual components, but does not dictate the actual path the cable will follow through the building.
Below is a line drawing outlining a typical SDN network utilizing Somfy™ Data Panels
A key pad can address multiple groups for shades, but should be located within the same room as the shades for clarity of operation.

A Somfy™ Data Panel is optional for the shade function, but is required for an installation with multiple rooms and multiple Somfy™ Power Panels to function as a network. Each Somfy™ Data Panel can support up to Four (4) individual SDN loops with a total cumulative cable length of 4,000 ft.

Should the Somfy™ Data Panel be omitted, each power panel will require the installation of a Somfy™ Bus Power Supply to supply communications power for the Key Pad(s). Each Somfy™ Power Panel can support up to 10 shade motors and has ports for 2 Key Pads or other devices. Should more than 2 key pads be required, a SDNH (Hub) can be added, trading One (1) device port for an additional 4 ports.

Rooms with more than 10 shades will require multiple Somfy™ Power Panels to be "daisy chained" in order to provide DC power for the shade motors. "Daisy chained" Somfy™ Power Panels can share a single Bus Power Supply, since the current draw on the communications side is very low.