

## THE SOMFY DIGITAL NETWORK SDN DATA BOOK



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Designed and developed by Somfy, SDN is a simple approach to the design and management of automated solar shading for the Bioclimatic Façade.

**SIMPLE TO DESIGN:** The SDN is a bus line based network of intelligent addressable motors and smart controls which are software configured for the management of day lighting and glare to improve the comfort of building occupants and reduce HVAC energy demands.

**SIMPLE TO CONFIGURE:** Each component on the SDN is assigned a unique address on the RS-485 bus. This scheme allows specific tasks, up – stop – down – intermediate positions – locking – scheduling, etc. for every Somfy smart switch and Somfy intelligent motor to be configured over the network at the software level. Configuration and re-configuration is easy as these functional assignments are made without the need to access the end product or physically re-wire SDN hardware.

**SIMPLE TO INSTALL:** Category 5 cable, commonly known as Cat 5 or "Cable and Telephone", is a <u>twisted pair</u> cable type designed for high signal integrity. This type of cable is often used in <u>structured wiring</u> for <u>computer networks</u> such as <u>Ethernet</u>. By using this world-wide wiring structure standard for the SDN Somfy has insured that bus line installation is cost effective and integrator friendly.

**SIMPLE TO SCALE:** SDN insures the scalability of the control system. Residential or commercial systems, whether designed for 10 motors or 1000 motors, no longer carry the first cost impact of providing a centralize building controller and remotely located hardware modules.

**SIMPLE TO PARTNER:** SDN plays nicely with others. With the standardization of the bus line approach on a RS-485 physical layer the SDN easily integrates with lighting, HVAC, and third party home automation systems.

**SIMPLE TO PERSONALIZE:** With the incorporation of the SDN web based Internet Protocol Interface, virtual switches can be remotely deployed on the existing buildings Local Area Network (LAN). This Graphical User Interface allows for each individual users PC on the LAN to have permission based control of their shading system. This personal control access is managed in the IP Interface. Virtual switches can be designed so that the user is only able to override the system when the energy performance of the shading system will not be compromised.

## Somfy Digital Network

SIMPLY A SMARTER CONCEPT FOR THE MANAGEMENT OF THE DYNAMIC FAÇADE AND FOR PROMOTING THE BIOCLIMATIC ARCHITECTURE INITIATIVE.

**HEALTH / WELL-BEING** 

**ENERGY SAVINGS** 

## **Somfy Digital Network Overview**

**SDN:** The Somfy Digital Network (SDN) is the latest generation of bus-line enabled Intelligent Tubular Motors and controls. The SDN components are integrated into a cost effective system designed to operate a wide range of end products such as solar screens, projection screens and Venetian blinds over a standard RS-485 network. Precise control of end product movement is accomplished by the advances offered with the latest range of Somfy intelligent motors. Each intelligent motor is supplied with a unique hard coded address at the point of manufacturing. This unique addressing scheme makes it possible to identify and control every motorized window treatment on the SDN system either individually or in preprogrammed groups. Control of the product on the SDN system is accomplished by using one or more Somfy Smart Switches or IP interface. The IP Interface / Web Server allows the deployment of a virtual smart switch. This virtual switch is a GUI control device accessed by any PC that is connected to the LAN, placing local control of an individual's solar protection a mouse click away. By eliminating the need for wall mounted switches for local control of individual areas the flexibility of the system is greatly enhanced while at the same time reducing installation costs. Now, a change in the building layout or the repurposing of the interior space no longer requires costly rewiring. It is now just a simple matter of adding or deleting the motors in one group and reassigning them to the new configuration design via software.

The Somfy Digital Network is capable of controlling thousands of motors on a single RS-485 network. Each segment of the SDN system architecture supports 256 unique devices. These unique devices are a combination of Somfy Smart Switches, ILT Motor Interface Devices (TAPS) and Smart Sensor Control Interfaces. System scalability is one of the major benefits of the SDN system design approach. With the SDN, network design remains a constant and allows system designs incorporating 50 motors to follow the same wiring architecture as a system with 1000 motors. This scalability is accomplished by simply adding RS-485 segment bridges for every 256 bus-line devices.

The SDN system is a standard half duplex, bi-directional RS-485 network. Bi-directional communications makes it possible to receive feedback from each motor on the network. This allows the system to view the position and status of any motor on the network, in real time. Since the SDN network runs over standard network architecture, it is possible to establish a remote connection to the system from anywhere internet access is available. This defines a new level of commissioning and support services that can be offered for today's energy efficient Intelligent Building.

## Somfy Digital Network Overview

#### INTELLIGENT MOTOR INTRODUCTIONS:

The SOMFY ILT2 and Sonesse 30 RS-485 are intelligent motors designed to control a variety of motorized applications without the use and installation of secondary motor controllers. These motors feature an on board microprocessor and a digital encoder, which allows the wide array of features to be easily programmed and controlled over the network with the precise positioning required in day lighting and sun tracking applications.

Whether your personal shading preference is solar screens, roman shades or horizontal blinds, addressing lifestyle design preferences is simple with the available 16 programmable intermediate positions. By programming the SDN to automatically adjust the position of the window treatments for predetermined events, these motors adds a great deal of flexibility to any motorized application.

Motor positioning is accomplished by sending standard commands over the RS-485 network from Somfy Smart Switches or third party building automation systems. Sixteen programmable preset positions are available to manage end product position throughout the system. Encoder based positions of the motor allow the precise alignment of the end product for a uniform appearance inside or outside the building.

Programming of the intelligent motors is done through Motor Configuration Software. The Motor Configuration Software is detailed in section 9.

#### **SMART SWITCH INTRODUCTION:**

The addressable Smart Switch is an SDN accessory which provides digital control of the assigned motors on the system. The Decora<sup>™</sup> style Smart Switch is available in 3-button and 6-button versions and can be located anywhere on the Somfy Digital Network. The Smart Switch allows the end product on the SDN network to function as a stand alone natural lighting control system and can be fully customized though the SDN Smart Switch Configuration Software. This configuration software allows the individual buttons on the Smart Switch to provide standard up, down and stop control for the assigned end product. Or, for one example, in a presentation room application the Smart Switch can be prioritized to enable a single button to provide a lock command to the blackout screens in the conference room. This ensures that external system wide commands for day lighting or sun tracking do not interfere with this one section of window treatments in the system.

Programming of the SDN Smart Switch is done through the switch Configuration Software. The Configuration Software is detailed in section 6.

#### **IP INTERFACE INTRODUCTION:**

The IP Interface is a serial device containing an embedded web server. This is used to connect the Somfy Digital Network of intelligent motors and control devices to a local area network, or LAN. The web server can be accessed via any standard web browser and is compatible with both PC and Mac platforms.

The IP Interface allows an almost unlimited number of personalized GUI's to be created, configured and then remotely deployed to the PC's on the LAN. GUI button text and button functions can be personalized to match the preprogrammed operations, individual user styles and user preferences. All buttons created generate an associated URL command for interfacing with compatible 3rd party IP control systems.

## **Somfy Digital Network Overview**

#### **RTS to SDN RECEIVER:**

A programmable bus connected device, the RTS to SDN receiver allows for SDN communication through any RTS remote, wall switch or interface. By adding a RTS to SDN receiver anywhere on the bus line and simply programming the desired RTS control to the receiver, control of up to five separate groups/zones of shades via RTS is enabled with no additional wiring.

#### ILT2 TAP:

The Somfy ILT2 Tap is a network device which converts the RS-485 communication protocol to TTL which is required by the ILT2 motor. By implementing the RS-485 protocol as the standard ILT2 communicating method, network wiring can reach distances of up to 4000 feet. Network wiring is easily daisy chained from each motor location to the next where the Taps are located.

An added advantage of the ILT2 Tap is that it also features a low voltage input for dry contact switches, IR sensors and RTS receivers to provide a cost effective local control option for motors on that particular branch. Unlike the Smart Switch, control devices added to the motor side of the TAP are only meant to provide non programmable local control and these control devices do not communicate with the bus line devices.

#### **RS-485 SEGMENT BRIDGE:**

The RS-485 Segment Bridge simply extends the RS-485 signal from one segment to the next, allowing multiple segments of a Somfy Digital Network to be connected.

#### ANIMEO RS-485 MOTOR CONTROLLER:

The Animeo motor controller is a four motor controller designed to allow standard motors to reside on the same network as intelligent motors, such as the ILT2 and ST-30 RS-485. Motor control is greatly enhanced with RS-485 communication and 16 Intermediate positions, individual and group control. Additionally, each motor output can be programmed to be part of up to 16 different groups. Control interior and exterior motorized applications with the Somfy Digital Network.

## Somfy Digital Network ILT2 Diagram



## **SDN Commercial Building Appplication**





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24 VDC POWER/CONTROL DISTRIBUTION PANELS

Revision No.

Part No. 1870196, 1870192, 1870197, 1870198

Description: The Power and Control Distribution Panels supplies power and communication to ST-30 RS-485 motors. Each motor output is individually fuse protected.

Specification:

- Input Power: 120 VAC
- Output Power: 24VDC
- Terminal block connections for power and communication
- Warranty: 5 years

Part Numbers:

1870196: 5 Motor Power/Control Distribution Panel 1870192: 10 Motor Power/Control Distribution Panel 1870197: 15 Motor Power/Control Distribution Panel 1870198: 20 Motor Power/Control Distribution Panel



1870196

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#### **IP INTERFACE**

Revision No. Date Part No. 1810850

The Somfy Digital Network (SDN) IP Interface is a serial device server used to connect the Somfy RS485 SDN BUS consisting of ILT2, ST-30 RS-485 motors and control devices to a managed LAN network. The IP Interface contains an internal web server with configuration software that is accessed via any standard web browser. The Somfy IP Interface is compatible with both the PC and the Mac platforms.

#### Main software features:

An almost unlimited number of personalized GUI's can be configured and created, remotely deployed and then accessed from a link on the individual users desktop allowing personal solar shading control. The Graphical User Interface actions have associated URL commands for interfacing with 3rd party IP control systems. Remote access to the IP Interface for configuration and remote diagnostics is available through HTTP port 80, un-proxied. Completely automated shade movements can be programmed via internal time scheduling and solar angle utility.

LAN: Ethernet: 10/100 Mbps, RJ45 Protection: Built-in 1.5 KV magnetic isolation

Serial Interface: Interface: RS-232 (Half duplex RS-485 w/ adapter) No. of Ports: 1 Port Type: DB9 (Male) Transmission Speed: 1.2 - 115 Kbps Signals: Tx, Rx, RTS, CTS, DTR, DSR, DCD, GND Serial Line Protection: 15 KV ESD for all signals

Serial Communication Parameters: Parity: None, Even, Odd, Space, Mark Data Bits: 5, 6, 7, 8

Software Features: Protocols: ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP Configuration: Web console, Telnet console







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ILT TAP

Revision No. Date March 1, 2008 Part No. 1870127

3.8"

**Terminal Block** 

1: +9VDC

2: GROUND

3: RS-485 B

4: RS-485 A

5: DOWN

6: UP

7: COM

ILT Tap - Single Motor

Description: The Somfy ILT Tap (Catalog # 1870127) is a device that resides on the Somfy Digital Network which converts the RS-485 communication protocol to TTL which is required by the ILT2 motor. Two RJ45 ports and a removable terminal block allow for easy network connections and simplified wiring with the use of cat5 patch cables. By using the RJ9 splitter, three ILT2 motors can be connected to one Tap.

Specification:

- Two female RJ45 connectors for network communication and power
- One 7 pin terminal block for an optional local switch and network connections
- One female RJ9 connector for connecting the ILT2 motors or RJ9 splitter
- Size: 3.8" L 2" W 0.8"H
- Warranty: 5 years



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ILT TAP- 4 motor

Revision No. Date December 1, 2008 Part No. 1870154

ILT Tap - Four Motor

Description: The Somfy ILT Tap (Catalog # 1870154) is a device that resides on the Somfy Digital Network which converts the RS-485 communication protocol to TTL which is required by the ILT2 motor. Two RJ45 ports allow for easy network connections and simplified wiring with the use of cat5 patch cables. Four ILT2 motors can be directly connected to one Tap.

Specification:

- Two female RJ45 connectors for network communication and power
- Four female RJ9 connectors
- Size: 3.8" L 2" W 0.8"H
- Warranty: 5 years



Cat5e

- 1: RS-485 A
- 2: RS-485 B 3: Not Connected
- 4: Bus Power
- 5: Bus Power
- 6: Bus Power Gnd 7: Bus Power Gnd

6: Bus Power Gnd 7: Bus Power Gnd

Cat5e

1: RS-485 A

2: RS-485 B

4: Bus Power

5: Bus Power

3: Not Connected

.56"

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#### CAT-5 TEE

Revision No. Date March 1, 2008 Part No. 9014573

Description: The Cat-5 Tee is a three way cat-5 splitter which provides a junction point for communication devices on the Somfy Digital Network.

Specification:

- Communication: Three female RJ45 connectors for network communication
- Size: 1.3" L 1.2" W 0.93"H
- Warranty: 5 years



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#### **SMART SWITCH**

Revision No. Date March 1, 2008 Part No. 1810827 & 1810828

Description: The Smart Switch is a control device which outputs the SDN protocol over RS-485, providing digital control of the Somfy Digital Network. The Smart Switch allows the SDN to function as a stand alone natural lighting control system and can be fully customized though the SDN Smart Switch Configuration Software. The Smart Switch is available in 3-button and 6-button versions which can be located anywhere on the Somfy Digital Network. Each dry contact is mapped to it's corresponding button. Contacts not associated to any button will output the programmed command onto the network.





#### Specification:

- Buttons are fully programmable
- Standard Decora style
- Mounts in a single gang box
- 8 dry contact inputs for system integration\*
- IR compatible
- Warranty: 5 years
- \* Requires 9 pin terminal block catalog # 55000339



#### Back of Switch



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#### **ILT SWITCH**

 Revision No.

 Date
 March 1, 2008

 Part No. 6300053(white) & 6300054(ivory)

Description: The ILT switch is designed to control and set the electronic limits of a single ILT motor. Catalog # 6300053(White) 6300054 (Ivory)

Specification:

- One female RJ9 connector
- One slide switch used for limit setting
- Standard Decora style
- Mounts in a single gang box
- Warranty: 5 years

Note: The ILT switch can not be located on the SDN bus.



Back of Switch



Limit Setting Switch

RJ9 Modular Port Motor Connection

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**ANIMEO RS-485** MOTOR CONTROLLER

Revision No. Date

Part No. (AC)1860158 (DC) 1860159

Description: The Animeo RS-485 motor controller enables standard motors to reside on the SDN. Employs the same functionality and protocol as ILT. Allows for control both interior and exterior products from the same switch or interface.

#### Specification:

- Power: 120 VAC or 24VDC -
- Communication: Terminal block for RS-485 A & B -
- Master & Individual dry contact inputs -
- Memory: Non-volatile flash memory -
- RTS compatible 433.42 MHZ -
- Warranty: 5 years \_





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#### **ILT RTS RECEIVER**



Description: The ILT RTS Receiver (Catalog # 1810613) is a radio frequency device designed to connect directly to the ILT motor and is fully compatible with all RTS transmitters and interfaces. The ILT RTS Receiver obtains its power directly from the ILT motor - therefore no external power supply is needed.

#### Specification:

- Communications: One female RJ9 connector for connecting the ILT motor
- Power: Obtained from ILT motor, red LED indicator
- Memory: Non-volatile flash memory stores up to 12 RTS channels even when power is not present
- Radio Frequency: 433.42 MHz
- Size: 3.85" L 2.1" W 1.5"H
- Warranty: 5 years



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**RTS to SDN RECEIVER** 

Revision No. Date Part No. 1822294

Description: The RTS to SDN Receiver is a radio frequency device designed to connect directly to the SDN bus line and is fully compatible with all RTS transmitters and interfaces. Communication of up to 5 groups of motors on the network through a single remote or interface. The receiver obtains its power directly from the bus line - therefore no external power supply is needed.

#### Specification:

- Communications: One female RJ45 connector for connecting the SDN bus line
- Power: Obtained from bus line, red LED indicator
- Memory: Non-volatile flash memory stores up to 5 RTS channels even when power is not present
- Radio Frequency: 433.42 MHz
- Size: 3.85" L 2.1" W 1.5"H
- Warranty: 5 years



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#### DCC SUN SENSOR

Revision No. Date

Part No. 1810956

Description: The Decorator Comfort Control enables any motor, or group of motors on the SDN to provide shading from the sun automatically and conveniently. The DCC sun sensor continually monitors sun intensity, triggering the Smart Switch send the window treatment to any programmed position. The summer/winter switch allows for maximum shading in the summer and maximum sunlight in the winter.

Connectivity: The DCC connects to a dry contact input on the back of a Smart Switch by means of a modular cable. When the sun intensity exceeds the level set on the DCC the smart switch will send the command associated with that contact.





4 Conductor Modular Cable with RJ9 Connectors

1 ft. Cable	9013349	
5 ft, Cable	9209061	
25 ft, Cable	9012343	
50 ft, Cable	9012344	

#### Bulk Cable w/o terminations

SPECIFICATIONS		
Туре:	1000 ft. spool flat modular telephone	
Conductors:	26 AWG, 7x34 stranded tinned copper	
Insulator:	Polypropylene	
Jacket:	PVC	
Voltage:	150V	
Passes:	CM vertical flame test	
Temperature rating:	60°C	
Acceptable current:	1.8A	
Conductor resistance:	<2∩/m	
Insulation resistance:	>100MΩ	
Dielectric withstand voltage:	>500VAC (between adjacent conductors)	
Capacitance/ft:	19.95~20.94pF, 25pF max. (between conductors)	
Tensile strength:	Insulation: Min. 1.0kg/mm x mm (square mm)	
	Jacket: 1.3kg/mm x mm (square mm)	
Elongation:	Insulation: Min. 200%	
	Jacket: Min. 100%	
Hardness of jacket:	PVC 60P	
	RoHS Compliant	

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SOMFY SYSTEMS, INC 609-395-1300 609-395-1776 RJ9 Modular Cable

Description: The modular cable can be used to connect the RJ9 splitter, to the ILT Tap, ILT Switch, ILT IR Receiver or ILT RTS Receiver.

The following cable lengths are available:

1 ft: Cat. No. 9013349 5 ft: Cat. No. 9209061 25 ft: Cat. No. 9012343 50 ft: Cat. No. 9012344





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#### LIMIT SETTING TOOL

Revision No. Date

Part No. 9050280

Description: The ILT Limit Setting Tool is a device which enables the UP and DOWN end limits of an ILT motor to be set, the direction of travel and one intermediate position.

#### Specification:

- (1) female RJ9 connector
- (1) slide switch for limit setting & normal operation
- Power led indicator
- Buttons for up, stop and down operation
- Size: 4.35" L 1.56" W 0.87"H
- Warranty: 5 years





SOMFY SYSTEMS, INC 609-395-1300 609-395-1776 ILT ADDRESS READER Revision No. Date Part No. 9015137

Description: The ILT Address Reader is a device used to retrieve the individual motor address of an ILT motor. Once retrieved, the motor's address should be recorded, and is later used to program the functionality of the Somfy Smart Switch and IP Interface. Additionally, the address reader is capable of setting the ILT motor end limits and programming Group Addresses into memory. Please refer to the ILT Address Reader instructions for additional information. Power for the Address Reader is supplied by a standard 9V battery.

#### Specification:

- Size: 4.62 L x 3.11 W x .95 H
- Warranty: 5 years



	SOMFY SYSTEMS, INC	BUS POWER	Revision No.
SOMTY	609-395-1300		Date
	609-395-1776	SUPPLY	Part No. 1822209

Description: The 24V DC, 1.25A plug-in transformer provides power to the RS-485 network and the devices that reside on it. Each power supply is capable of powering up to 100 network devices, including ILT taps and programmable smart switches.

Specification:

- Size: 2.55"L x 2.16"W x 1.95"H
- Weight: 13.2 oz.





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#### **RS-485 Converter**

Revision No. Date Part No.

Description: The USB powered RS-485 converter enables the programmer to easily connect a PC to the SDN. After installing the required drivers the device will show up as an additional COM port in the Device Manager.

B&B part model number: 485USBTB-2W



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**RS-485 Repeater** 

Revision No. Date Part No.

Description: Optically isolated, the main purpose of the RS-485 repeater for use within the SDN is to protect and extend the range of the RS-485 data line an additional 4000 feet.

12 VDC, 300 mA power supply included.

B&B part model number: 4850P



## **ILT 50 Motor Specifications**

# LT50 ILT Starhead

#### LT50 ILT Roundhead



Mounting Hole .87/22 Deep	× MAX. × ±.12/3	
	→ → + + + + + + + + + + + + +	8 1.85/47
Ø.48/12	7 1.0/25	4 Steel Pop Rivets 5 mm in Diameter 90° Apart (Typical)



Nominal voltage	120V - 60Hz	
Power supply tolerances	108 -128V	
Thermal time	5 minutes	
Number of wires of the cable	3	
Wire section	AWG 18	
Type of limit switch unit	Electronic	
Capacity of the LSU	300 turns	
Repeatability	< +3°	
System of protection	IP 44	
Basic crown for tube diameter	50 x 1.5mm	
Phone cable	Flat 4 point	
Connector	Rj9 type male plug	
Electromagnetic compatibility	CEI 1000 - 4 - 2	
Temperature working range	Nominal use: -10°C to +40°C	
	Exceptional use (20% of the life time not continuous)	
	-25°C to +70°C	

#### LT50 ILT Starhead

MOTOR TYPE	X in. / mm	Y in. / mm
506S2 ILT	23.8/605	23.2/590
515S2 ILT	26.6/675	26.0/660
535A2 ILT	26.6/675	26.0/660

#### LT50 ILT Roundhead

MOTOR TYPE	X in. / mm	Y in. / mm
506S2 ILT RH	23.8/605	23.2/590
515S2 ILT RH	26.6/675	26.0/660
535A2 ILT RH	26.6/675	26.0/660

MOTOR TYPE	CAT. NO.	NOMINAL TORQUE	SPEED (rpm)	TUBE (mm)	RATED POWER	RATED CURRENT	THERMAL TRIPPING	BRAKE TYPE	WEIGHT Kg.	NOISE dBA
506S2 ILT2 Star head	1030055	6 / 53	38	540	110	0.95	140	Sliding	2.07	55
506S2 ILT2 Round head	1030074	6 / 53	38	540	110	0.95	140	Sliding	2.07	55
515S2 ILT2 Star head	1100026	15 / 132	38	610	210	1.8	140	Sliding	2.77	56
515S2 ILT2 Round head	1103017	15 / 132	38	610	210	1.8	140	Sliding	2.77	56
535A2 ILT2 Star head	1030075	35 / 310	20	610	250	2.1	140	Sliding	2.77	-
535A2 ILT2 Round head	1030076	35 / 310	20	610	250	2.1	140	Sliding	2.77	

## **Sonesse 50 ILT Motor Specifications**

#### Sonesse 50 ILT Starhead



#### Sonesse 50 ILT Roundhead



2 Mounting Holes for Self-TappingScrew Dia. 5 mm (Cat. # 4000556) Depth 13 mm, Spaced 1.89" (48 mm) Apart





Nominal voltage	120V - 60Hz
Power supply tolerances	108 -132V
Thermal time	4 minutes
Number of wires of the cable	3
Wire section	AWG 18
Type of limit switch unit	Electronic
Capacity of the LSU	300 turns
Repeatability	< +2°
System of protection	IP 31
Basic crown for tube diameter	50 x 1.5mm
Phone cable	Flat 4 point
Connector	Rj9 type male plug
Electromagnetic compatibility	CEI 1000 - 4 - 2
Temperature working range	Nominal use: 0°C to +60°C

#### Sonesse 50 ILT Starhead

MOTOR	X	Y
TYPE	in. / mm	in. / mm
504S2 ILT	30.9/783	30.3/770

#### Sonesse 50 ILT Roundhead

MOTOR	X	Y		
TYPE	in. / mm	in. / mm		
504S2 ILT RH	30.9/783	30.3/770		

MOTOR TYPE	CAT. NO.	NOMINAL TORQUE	SPEED (rpm)	TUBE (mm)	RATED POWER	RATED CURRENT	THERMAL TRIPPING	BRAKE TYPE	WEIGHT Kg.	NOISE dBA
504S2 ILT Star head	1030053	4 / 35	30	720	110	0.95	120	Sliding	2.875	44
504S2 ILT Round head	1030077	4 / 35	30	720	110	0.95	120	Sliding	2.875	44

## **Sonesse 30 RS-485 Motor Specifications**



Nominal voltage	24 VDC (Regulated)				
Power supply tolerances	20 - 28				
Thermal time	2.5 minutes (software managed)				
Power wires	2 (24 AWG), 2 pin JST connector				
Data wires (RS-485)	3 (24 AWG) twisted pair shielded, 3 pin JST connecto				
Dry contact wire	4 (24 AWG), 4 pin JST connector				
Capacity of the LSU	35 turns each direction				
Repeatability	< +2°				
End limit Adjustment	DCT limit setting tool				
Temperature working range	0° - 60° C (32°F - 140°F)				
Intrusion Protection (IP)	30				
Safety & Health Compliance	EN 55014 -1&2 EN 60335-1&2				
Noise Level	44 dBA				

MOTOR TYPE	CAT. NO.	NOMINAL TORQUE	SPEED (rpm)	TUBE (mm)	RATED POWER	MAX CURRENT DRAW	MINIMUM INPUT POWER	WEIGHT	NOISE dBA
SONESSE 30 RS-485	1030658	2 Nm 17. 7 Lb-In	6 - 28 RPM	31 ID	24VDC	3.2 A (<300ms)	1.6 A	0.5 Kg 1.1 Lb	44

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