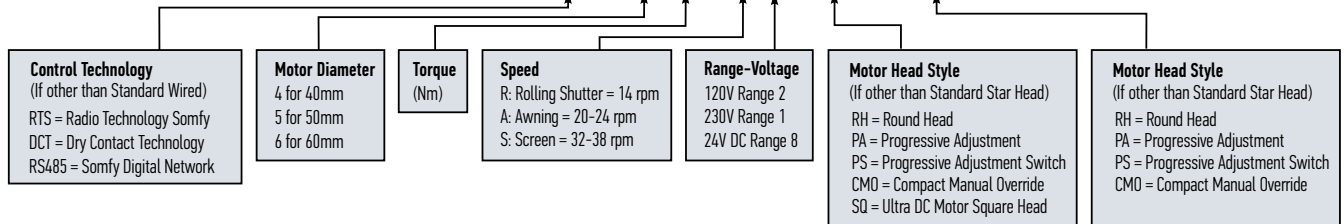


Somfy's Low-voltage Motor Range



MOTOR IDENTIFICATION KEY

Sonesse® ULTRA 50 DC RTS 504 A8 SQ 4/25



SOMFY TECHNOLOGIES



Radio Technology Somfy® (RTS) allows wireless radio control of motorized applications via the RTS family of controls.



Dry Contact is a dry contact input for a basic low voltage control.

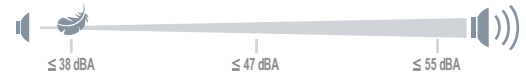


RS485 is another control method that uses a two-wired bus. Due to the open source nature of the RS485 protocol, many building management systems and home automation systems use this protocol to communicate to devices. Systems that use the RS485 connection can be programmed to Somfy RS485 motors or controllers to operate the installation.

SOMFY DESIGNED FOR SILENCE

Quietness Scale

The Sonesse® range of motors are rated according to their quietness. The volume scale below appears on all Sonesse range specification pages and designates the motor's level of sound output.



WHY CHOOSE SOMFY'S SONESSE® LOW VOLTAGE RANGE?

Quiet and Strong:

- Stronger torque for larger applications including multi-banded/coupled window coverings
- Uniform quiet operation in both the up and down directions under 38dBA

Wide Range of Solutions:

- Interior and exterior applications
- Line voltage (AC) or Low voltage (DC) power options
- Residential and commercial markets
- Radio, digital or wired integrated network options

Streamlined Programming:

- RTS limits set via radio transmitter
- Wired simple push-button limit setting
- Improved RS485 commissioning process:
 - Motor auto discovery
 - Motor position feedback
 - Compatible with Somfy's animeo® IP system
 - Multiple intermediate positions
 - Collision detection

Simplified Fabrication and Installation:

- Utilizes existing fabrication methods on the market today
- Compatible with leading industry hardware solutions

Superior Quality:

- Motors undergo rigorous endurance, acoustic, radio, mechanical, electrical and safety tests in our 65,000 sq. ft. quality control and testing facility
- More than 600 approved standards worldwide
- Manufactured and sold over 160 million motors

Simple Electrical Connection:

- Available with UL approved pigtail quick connects or screw in flying leads for low-voltage (DC) power and data.
- Plug-in option eliminates the need for an electrician

All Somfy Motors are UL Listed and CSA Recognized

- All SOMFY motors are UL Listed or Recognized and can be found under the following file numbers:

E60495, E60888, E63714



Sonessa® ULTRA 50 DC RTS

Square Head Motor

504A8 1134023

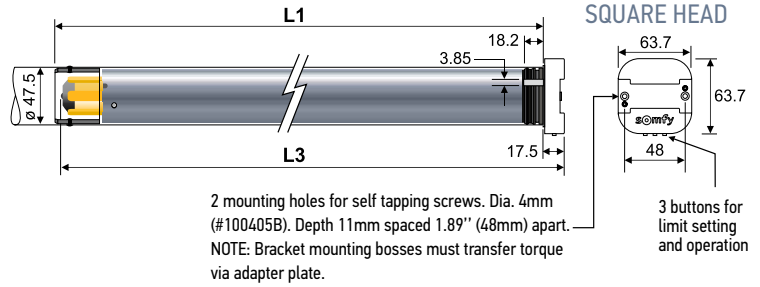


Radio Technology Somfy (RTS) allows for wireless radio control of motorized window coverings via the RTS family of controls.

Technical Features

Dimensions

- NEW Sleep Mode** New feature that allows for advanced programming and grouping.
- Voltage Supply** 24V DC
- Index Protection Rating** IP 20 (interior)
- Limit Switch Type** Electronic
- Limit Switch Capacity** 38 Turns
- Temperature Working Range** 32°F to 140°F (0°C to 60°C) (interior use only)
- Insulation Class** Class 3
- Wiring** In accordance with NEC and local electrical codes.
- Power Supply** Use only Somfy's power supplies to maintain UL listing requirements and guarantee motor's performance.



Dimensions

L1	30.7 in. (780 mm)
L3	31.5 in. (800 mm)
Data & Power Cable Length	10 in. (250 mm)

Specifications

- * **Minimum Torque:** Minimum application weight to ensure smooth operation.
- ** **Sound Level:** According to standards ISO 3741 NF 31022 in dBA ref 1pW at nominal torque without end product.

Fabrication Recommendations:

- Operational noise level is reduced when the motor, tube, and mechanical accessories are properly adapted to motorized applications.
- Free play must be minimized between the accessories and the end product tube to ensure quiet performance of the motor.
- Due to the variances of standard aluminum extrusion tolerances, it is recommended to screw the drive wheel & pin end to immobilize them and ensure quiet performance throughout the life of the product.
- Interior Tube Diameter (ID) > 47 mm must be respected.
- A motor crown adaptor between motor and end product tube is required to ensure concentric operation of the motor.
- 500 Series Drive Stop and Screw (9910004) is recommended to prevent noise and drive wheel separation from the motor shaft. This drive stop screw must be tightened with a torque ranging between 1.5 Nm and 1.8 Nm.
- Somfy Soft Clip Drive Wheel Adaptors (brown in color) are not recommended.

Torque	4 Nm
* Minimum Torque	0.4 Nm
Nominal Voltage	24V DC
Rated Current	1.5A
Speed	Adjustable: 10-25 rpm (default: 25)
Thermal Protection	5 minutes
** Sound Level	≤ 38 dBA



Pigtail Power Cable: (Included with every motor. Also available separately, part # 9020005).

Weidmuller Connects to Network

Cable Detail View

JST to Motor

Connector Markings Detail View

Font: Ariel
Height: 2.3 mm
Color: Black

Maximum Power Cable Length (to guarantee characteristics)

GAUGE	LENGTH
14 AWG	240 ft.
16 AWG	150 ft.
18 AWG	100 ft.

Sonessa® ULTRA 50 DC RS485

Square Head Motor

504A8 1134022

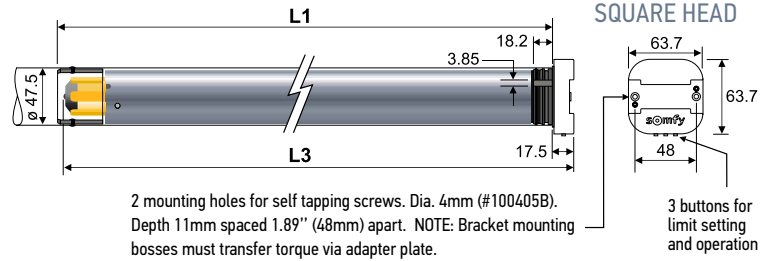


A new generation of intelligent motors that are controlled and monitored via Somfy Digital Network solutions and animeo® IP total solar management system.

Technical Features

Voltage Supply	24V DC
Index Protection Rating	IP 20 (interior use)
Limit Switch Type	Electronic
Limit Switch Capacity	38 Turns
Temperature Working Range	32°F to 140°F (0°C to 60°C) (interior use only)
Insulation Class	Class 3
Wiring	In accordance with NEC and local electrical codes.
Power Supply	Use only Somfy's power supplies to maintain UL listing requirements and guarantee motor's performance.

Dimensions



Dimensions

L1	30.7 in. (780 mm)
L3	31.5 in. (800 mm)
Data & Power Cable Length	10 in. (250 mm)

Specifications

- * **Minimum Torque:** Minimum application weight to ensure smooth operation.
- ** **Sound Level:** According to standards ISO 3741 NF 31022 in dBA ref 1pW at nominal torque without end product.

Fabrication Recommendations:

- Operational noise level is reduced when the motor, tube, and mechanical accessories are properly adapted to motorized applications.
- Free play must be minimized between the accessories and the end product tube to ensure quiet performance of the motor.
- Due to the variances of standard aluminum extrusion tolerances, it is recommended to screw the drive wheel & pin end to immobilize them and ensure quiet performance throughout the life of the product.
- Interior Tube Diameter (ID) > 47 mm must be respected.
- A motor crown adaptor between motor and end product tube is required to ensure concentric operation of the motor.
- 500 Series Drive Stop and Screw (9910004) is recommended to prevent noise and drive wheel separation from the motor shaft. This drive stop screw must be tightened with a torque ranging between 1.5 Nm and 1.8 Nm.
- Somfy Soft Clip Drive Wheel Adaptors (brown in color) are not recommended.

Torque	4 Nm
* Minimum Torque	0.4 Nm
Nominal Voltage	24V DC
Rated Current	1.5A
Speed	Adjustable: 10-25 rpm (default: 25)
Thermal Protection	5 minutes
** Sound Level	≤ 38 dBA



Pigtail: Data and Power (Included with every motor. Also available separately, power and data pigtail (#9020004) or 5 position motor connector (#9020743) only.)

Weidmuller Connects to Network

Cable Detail View

JST to Motor

Connector Markings Detail View

For detailed wiring go to page 19.

Maximum Power Cable Length (to guarantee characteristics)

GAUGE	LENGTH
14 AWG	240 ft.
16 AWG	150 ft.
18 AWG	100 ft.

Part # 9020743

Visit somfysystems.com/sdn-2-0 for complete information on SDN 2.0 Bus Distribution Products.

Sonesse® 30 RTS

Sonesse 30 RTS
#1001524



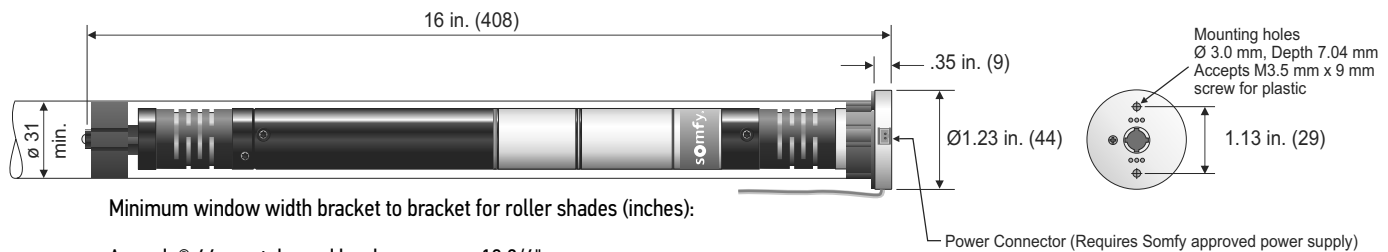
Radio Technology Somfy (RTS) allows for wireless radio control of motorized window coverings via the RTS family of controls.

Technical Features

Voltage Supply	24V DC	Temperature Working Range	32°F to 140°F (0°C to 60°C)
Index Protection Rating (interior use only)	IP 30	Insulation Class	Class III
Limit Switch Type	Electronic (RTS)	Antenna	Must not come in contact with metal. May need to be repositioned for optimal range.
Limit Switch Capacity	35 Turns		

NOTE: Sonesse 30 DC RTS Cable Data and Power Pigtail #9020260 is included with motor.

Dimensions



Specifications

Voltage	24V DC
Motor power connection	2 pin JST, 2 mm pitch
Nominal load starting current	1.8A for max. 300 ms
Nominal load current	.8A
Maximum current during programming	3.2A for 300 ms
Torque	2 Nm
Speed	Adjustable: 6-28 rpm (default: 28)
Thermal protection	2.5 minutes
Minimum inside diameter of tube	1.22 in. (31 mm)
Sound Level*	44 dBA
RF control range (may vary)	65 ft.

*Sound level:

Sound level measured at 3 feet from end product at maximum torque.

Fabrication recommendations:

- Operational noise level is reduced when motor, tube, and mechanical accessories are properly adapted to motorized applications.
- Free play must be minimized between the accessories and the end product tube to ensure quiet performance of the motor.
- Interior Tube Diameter (ID) > 31 mm must be respected.
- A motor crown adaptor between motor and end product tube is required to ensure concentric operation of motor.
- ST30 Series Drive Stop and Screw (included with crown and drive), are recommended to prevent noise and drive wheel separation from motor shaft.

Type of power cable

24V DC POWER CABLE

2-Conductor
7.5' Length
24 AWG Conductors



Maximum Power Cable Length
(to guarantee characteristics)

GAUGE	LENGTH
14 AWG	240 ft.
16 AWG	150 ft.
18 AWG	100 ft.

Optional Pigtail: Sonesse 30 DC RTS Cable Power Pigtail #9020260 (not included with motor)

Sonesse® 30 RS485

Sonesse 30 RS485

#1000658



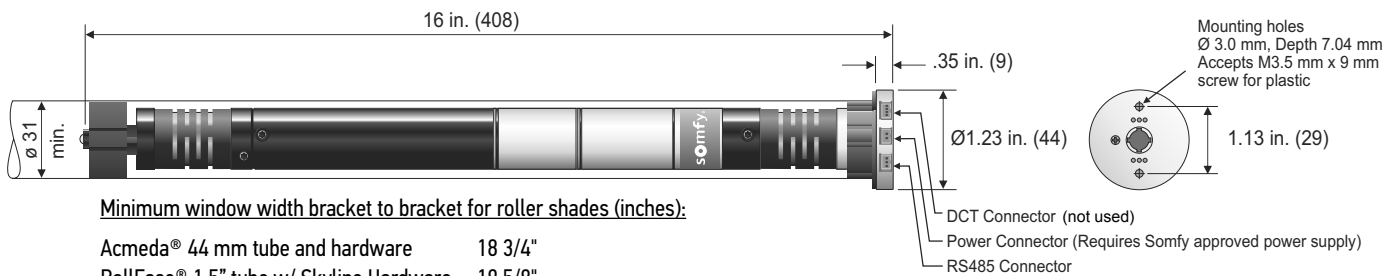
Somfy Digital Network (SDN), is Somfy's proprietary digital communication backbone compatible with industry standard RS485

Technical Features

Voltage Supply	24V DC	Temperature Working Range	32°F to 140°F (0°C to 60°C)
Index Protection Rating	IP 30	Insulation Class	Class III
Limit Switch Type	Digital	Optional Pigtail:	
Limit Switch Capacity	35 Turns	Sonesse 30 DC RS485 Cable Data and Power Pigtail #9020261 for Power Panel installations is not included with motor.	

RS485 Limit Setting Tool and address reader #9017142 is required for setting limits. (sold separately)

Dimensions



Minimum window width bracket to bracket for roller shades (inches):

Acmeda® 44 mm tube and hardware	18 3/4"
RollEase® 1.5" tube w/ Skyline Hardware	19 5/8"
RollEase® 1.5" tube w/ R8 Hardware	18 1/2"

Specifications

Voltage	24V DC
Motor power connector	2 pin JST, 2 mm pitch
Motor RS485 connector	3 pin JST, 2.54 mm pitch
Motor DCT connector (not used)	4 pin JST, 2 mm pitch
Nominal load starting current	1.8A for max. 300 ms
Nominal load current	.8A
Maximum current during programming	3.2A for 300 ms.
Torque	2 Nm
Speed	Adjustable: 6-28 rpm (default: 28)
Thermal protection	2.5 minutes
Minimum inside diameter of tube	1.22 in. (31 mm)
Sound Level*	44 dBA

*Sound level:

Sound level measured at 3 feet from end product at maximum torque.

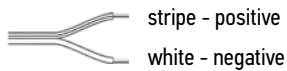
Fabrication recommendations:

- Operational noise level is reduced when motor, tube, and mechanical accessories are properly adapted to motorized applications.
- Limit setting to be set with Limit Setting Tool #9017142
- Free play must be minimized between the accessories and the end product tube to ensure quiet performance of the motor.
- Interior Tube Diameter (ID) > 31 mm must be respected.
- A motor crown adaptor between motor and end product tube is required to ensure concentric operation of motor.
- ST30 Series Drive Stop and Screw (included with crown and drive), are recommended to prevent noise and drive wheel separation from motor shaft.

Type of power and data cables (included)

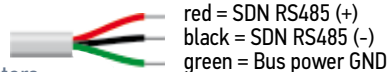
24V DC POWER CABLE #9014794

2-Conductor
7.5' Length
24 AWG Conductors



RS485 COMMUNICATION CABLE #9019190

3-Conductor
7.5' Length
24 AWG Conductors



Maximum Power Cable Length (to guarantee characteristics)

GAUGE	LENGTH
14 AWG	240 ft.
16 AWG	150 ft.
18 AWG	100 ft.

Optional Pigtail: Sonesse 30 DC RS485 Cable Data and Power Pigtail #9020261 (not included with motor)

Sonesse® 30 DCT

Sonesse 30 DCT
#1000668



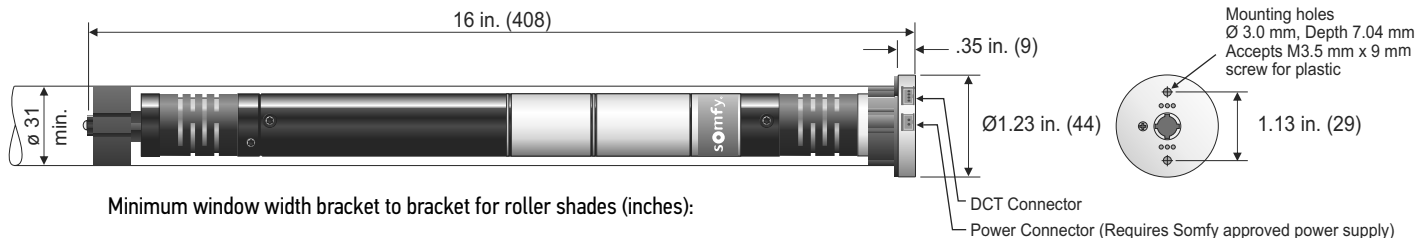
DRY CONTACT

Offers control via contact closure switching (dry contact)

Technical Features

Voltage Supply	24V DC	Temperature Working Range	32°F to 140°F (0°C to 60°C)
Index Protection Rating (interior use only)	IP 30	Insulation Class	Class III
Limit Switch Type	Dry Contact	NOTE: Power/Control motor cables are included with motor. Limit Setting Tool #9014599 is required for setting limits. (sold separately)	
Limit Switch Capacity	35 Turns		

Dimensions



Specifications

Voltage	24V DC
Motor power connection	2 pin JST, 2 mm pitch
Motor DCT connector	4 pin JST, 2 mm pitch
Nominal load starting current	1.8A for max. 300 ms
Nominal load current	.8A
Maximum current during programming	3.2A for 300 ms
Torque	2 Nm
Speed	Adjustable 6-28 rpm (default 28)
Thermal protection	2.5 minutes
Minimum inside diameter of tube	1.22 in. (31mm)
Sound Level*	< 44 dBA

***Sound level:**

Sound level measured at 3 feet from end product at maximum torque.

Fabrication recommendations:

- Operational noise level is reduced when motor, tube, and mechanical accessories are properly adapted to motorized applications.
- Free play must be minimized between the accessories and the end product tube to ensure quiet performance of the motor.
- Interior Tube Diameter (ID) > 31 mm must be respected.
- A motor crown adaptor between motor and end product tube is required to ensure concentric operation of motor.
- ST30 Series Drive Stop and Screw (included with crown and drive), are recommended to prevent noise and drive wheel separation from motor shaft.

Type of power cable (included with motor)

24V DC POWER CABLE #9014794

2-Conductor
7.5' Length
24 AWG Conductors



stripe - positive
white - negative

DCT COMMUNICATION CABLE #9014793

4-Conductor
7.5' Length
24 AWG Conductors



white/blue = up
blue = stop
white/orange = down
orange = ground