



Committed to **you**

ROLLER SHUTTER

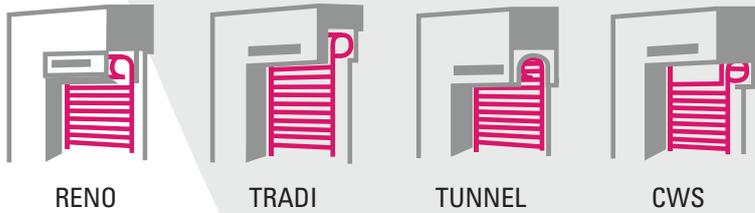
## AUTONOMOUS SOLAR SOLUTION AUTOSUN 2 BHZ



### 100% AUTONOMOUS SOLAR SOLUTION, WITHOUT WIRING

- **AUTONOMOUS MOTORIZATION SYSTEM** for roof and facade roller shutters, operating with solar energy, a **free, clean and renewable** energy.
- **NO WIRING:** AUTOSUN 2 BHZ does not need to be connected neither to the electrical network nor to control points (SIMU-Hz radio technology), which means no degradation of interior walls.
- **OPTIMIZED OUTPUTS:** AUTOSUN 2 BHZ has been designed to run in most geographical area.
- **AUTONOMY OF THE SYSTEM: 45 DAYS WITHOUT SUN**, 2 cycles per day.

# WHAT IS AUTOSUN 2 BHZ ?



- A new autonomous system with 3 new BHZ motors (bidirectional), using the 3 current NIMH batteries such as the 2 current choices of solar panels to motorize and be integrated into all façade or roof roller shutters of the market.

## AUTOSUN 2 BHZ MOTOR

- 3 new motors with a PVC cable of 20cm.
- 2 connectors 2 points with mistake-proofing and on antenna of 30cm.
- Reduced size of the connectors to ease the integration inside the side frame.
- Radio technology **simu-BHZ** technology
- Adjustment of the end-limits: automatic, semi-automatic, manual.
- Adjustment of the end limit with reduced speed in manual mode to ease the setting.
- Stop on obstacle function: the motor will stop during the closing if it meets an obstacle.
- Frost detection function: the motor will stop during the opening if the shutter curtain is stuck in the guide rails by frost or if the bottom lath is locked.
- Intermediate position function: it is possible to record a user's favorite position.
- Push "STOP" button of the transmitter to move the roller shutter to the favorite position.
- At UP & DOWN end-limit, the motor will slowly decrease its speed while reaching its end-limits.
- Compatible with the SIMU-BHZ controls and BHZ sun sensor through LiveIn2.

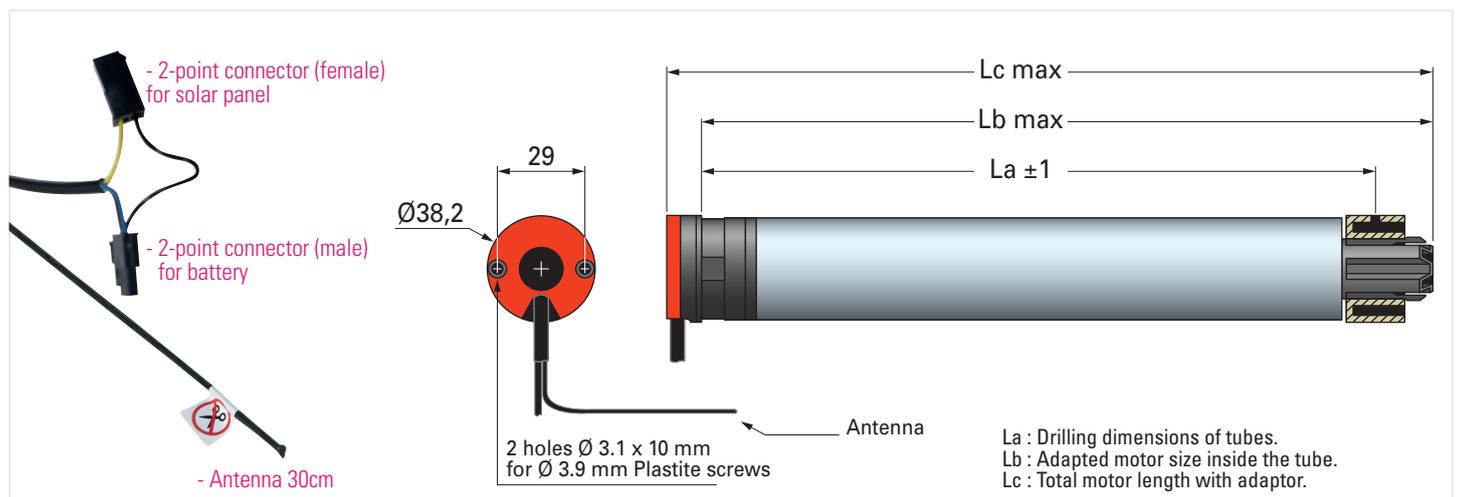


## MOTOR RANGE

### POWER SUPPLY 12 VDC

DESCRIPTION	TORQUE	SPEED	POWER	CURRENT	La	Lb	Lc	WEIGHT	x1	REFERENCES x10	x100
T3.5 EBHZ DC - 3/23	3 Nm	23 rpm	17 W	1.4 A	437 mm	459 mm	474 mm	0.77 kg	2009551	2009554	2009557
T3.5 EBHZ DC - 6/18	6 Nm	18 rpm	26 W	2.2 A	437 mm	459 mm	474 mm	0.8 kg	2009552	2009555	2009558
T3.5 EBHZ DC - 10/12	10 Nm	12 rpm	30 W	2.4 A	437 mm	459 mm	474 mm	0.8 kg	2009553	2009556	2009559

## TECHNICAL CHARACTERISTICS



## TECHNICAL CHARACTERISTICS

**POWER SUPPLY:** 12 Volts

**END LIMIT:** Electronic system with operating limited to 3 min.

**PROTECTION INDEX:** IP 44

**PVC CABLE:** Long. 0.2 meters, 3x0.75 mm<sup>2</sup> wires, Black PVC diam 5mm with two connectors

**SIMU-BHz RADIO FREQUENCY:** Tri-band radio frequency 868-870 MHz with possibility to edit 8 times the order.

**SECURE COMMUNICATION:** Encrypted control orders + Rolling code with 16 million possible combinations

**RANGE:** Wall version: 150 meters in open field and 15 meters trough 2 reinforced concrete walls

Mobile version: 200 meters in open field and 20 meters trough 2 reinforced concrete walls

**MOTOR HEAD THICKNESS:** 15 mm

**END-LIMIT ADJUSTMENT:** every 56 cycles during 4 cycles

**AUTONOMY :** 45 days

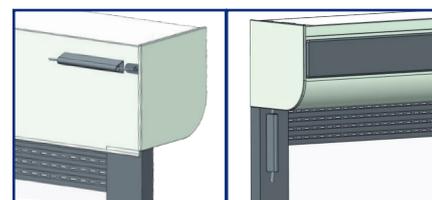
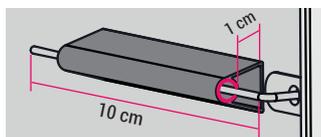
**STANDARDS**  



## ACCESSORY FOR ANTENNA

- To guarantee radio performances, it is mandatory to place the antenna outside the roller shutter box. This bracket enables to place 10cm of the antenna cable outside the roller shutterbox and 1 cm away from a metallic part.

DESCRIPTION	REFERENCES	
	x 1	x 100
ANTENNA BRACKET	9027175	9027174

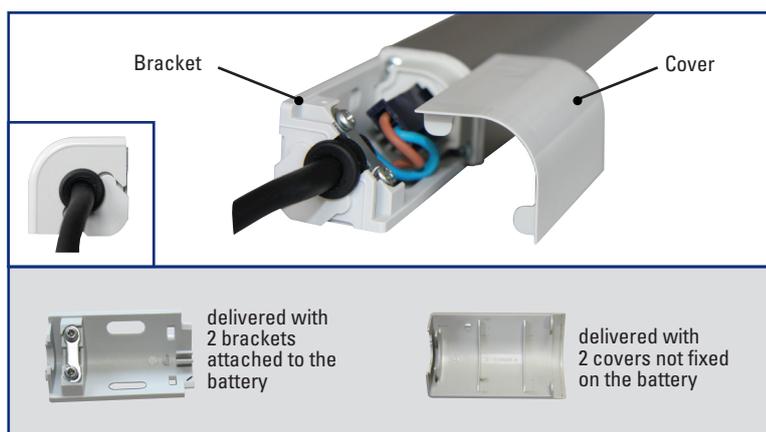
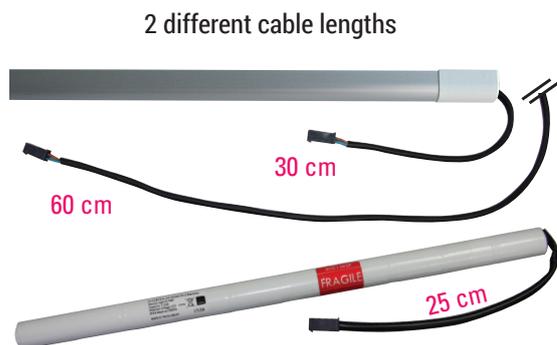


## BATTERIES



### WIDE RANGE OF BATTERIES TO SUIT AT BEST ALL INSTALLATION

- 1 battery stick with alu cover and its cable of 30cm.
- 1 battery stick with alu cover and its cable of 60cm.
- 1 naked battery, without alu cover and its cable of 25cm. Fixing by pop rivet of the specific brackets and elastics to guarantee the fixing.
- New connectors: reduced size of the connector to ease the integration inside the side frame.
- Battery with alu cover: possibility to connect and disconnect the battery cable easily without opening the roller shutter box. Indeed, once the plastic cover of the stick is removed you can unplug/plug the battery cable.



## TECHNICAL CHARACTERISTICS

**BATTERY Ni-MH**

**NOMINAL VOLTAGE:** 12V

**CAPACITY:** 2.2 Ah

**AMBIENT TEMPERATURE OF USE:** from -20°C to +70°C

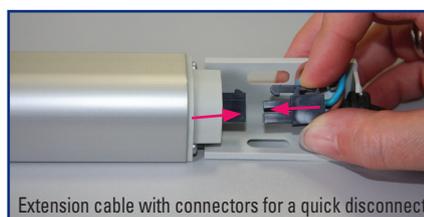
**PROTECTION INDEX:** IP X4

**LIFETIME:** ± 8 years

**DIMENSIONS & WEIGHT:** naked battery 430 x 23.5mm - 520gr

battery stick with alu cover 570 x 27 x 27mm with 0.3m cable (2-point connector) - 730gr

battery stick with alu cover 570 x 27 x 27mm with 0.6m cable (2-point connector) - 760gr



INSTALLATION	ADVANTAGES	RECOMMENDED BATTERIES
<b>Battery outside the roller shutter box:</b> - Between the guide rail and the wall - Behind the Roller Shutter box	<b>Easy access to the battery</b> for resetting the system or replacement of the battery	- Battery with alu cover and its cable of 30cm. Fixing with adhesive or brackets. - Battery with alu cover and its cable of 60cm. Fixing with adhesive or brackets.
<b>Battery inside the roller shutter box</b>	<b>Full integration in factory, nothing to do on site,</b> the roller shutter is ready for use/installation on site.	- Battery with alu cover and its cable of 30cm. Fixing with adhesive or brackets. - Naked battery and its cable of 25cm. Fixing with specific brackets & elastics.



## REFERENCES

DESCRIPTION	x 1	REFERENCES x 10	x 20
<b>NAKED BATTERY</b>	<b>9020808</b>	-	<b>9020628</b>
<b>BATTERY STICK + CABLE 30CM</b>	<b>9020634</b>	<b>9021212</b>	-
<b>BATTERY STICK + CABLE 60CM</b>	<b>9020635</b>	<b>9021213</b>	-

## KIT REFERENCES

PRODUCT	DESCRIPTION	REFERENCES x 1
Battery with cable of 30cm (9020634) + Solar panel with fixing holes (9019032)	<b>SOLAR KIT EXTERIOR C0.3M/1</b>	<b>9021214</b>
Battery with cable of 60cm (9020635) + Solar panel with fixing holes (9019032)	<b>SOLAR KIT EXTERIOR C0.6M/1</b>	<b>9021215</b>

## BATTERY ACCESSORIES REFERENCES

<b>SET OF 20 ADHESIVES BATT STICK</b> (length x width = 550 x 15 mm)	<b>9021216</b> (x1)
<b>SET OF 2 WEDGES BATTERY STICK</b> (dimension: 23 x 19 mm)	<b>9020637</b> (x1)
 <b>BRACKET WITH ELASTIC TO FIX NAKED BATTERY</b>	<b>9020630</b> (x40) <b>9020629</b> (x200)



## SOLAR PANELS

- 2 solar panels : WITH HOLES and WITHOUT HOL (with adhesive)
- Aesthetic design
- 2 possible fixing:
  - Directly on the roller shutter box by pop rivets
  - On the inclined brackets, on the roller shutter box or on the wall to capture more sun.



- NEW**
- All solar panels have a cable length of 20cm.

## TECHNICAL CHARACTERISTICS

**MATERIAL:** Resin panel

**TYPE OF PANEL:** Photovoltaics monocrystalin

**PROTECTION INDEX:** IP X4

**DELIVERED VOLTAGE:** 195,8 mA max.

**POWER:** 3.2 W

**TYPE OF CABLE:** 2 Cable of 200mm with 2-point connector type Molex plug (male) and rubber cable-gland for impermeability

**DIMENSIONS:** 470 x 60 x 6 mm

**WEIGHT:** 230 g



- Adhesive to stick the solar panel directly on the renovation shutter box



- Inclined bracket to ease the fixing of the solar panel with holes

## REFERENCES

DESCRIPTION	REFERENCES		
	x 1	x 20	x 20
Solar panel with fixing holes	9019032	9019031	9018382
Solar panel with sticker	9020627	9020626	-

## KIT REFERENCES

PRODUCT	DESCRIPTION	REFERENCES x 1
Solar panel with fixing holes (9019032) + battery with cable of 30cm (9020634)	SOLAR KIT EXTERIOR C0.3M/1	9021214
Solar panel with fixing holes (9019032) + battery with cable of 60cm (9020635)	SOLAR KIT EXTERIOR C0.6M/1	9021215

## PANEL SOLAR ACCESSORIES REFERENCES

PRODUCT	DESCRIPTION	REFERENCES x 1
	Solar panel bracket	9019683
	Extension cable for solar panel (5m)	9019722

## BATTERY CHARGER



Europe



US

- New battery charger with 2 plugs: one for the EU and another one for the US power supply

### TECHNICAL CHARACTERISTICS

**CLASS II:** double insulation  
**INTENSITY DELIVERED:** 800 mA max  $\pm 10\%$   
**DIMENSIONS:** 118 x 62 x 35mm  
**PROTECTION INDEX:** IP 30  
**INPUT VOLTAGE:** 100-240VCA  $\pm 10\%$ , 50/60Hz  
**BATTERY:** Ni-MH  
**CONNECTORS:** 2-point connector Molex (Male) type

### REFERENCE

DESCRIPTION	REFERENCE x 1
Charger	9020638

## KIT REFEREN(ES) (SOLAR PANEL, BATTERY, MOTOR)

- The kit is made up of one motor, one solar panel and battery in alu cover (cable 60cm), and is delivered in a single packaging, to meet at best installer needs or for one renovation.



PRODUCT	DESCRIPTION	REFERENCE x 1
T3.5EBHZ DC 3/23 motor + battery with cable of 60cm + solar panel	T3.5EBHZ 3/23 12V + KIT SOL EXT	2009560
T3.5EBHZ DC 6/18 motor + battery with cable of 60cm + solar panel	T3.5EBHZ 6/18 12V + KIT SOL EXT	2009561
T3.5EBHZ DC 10/12 motor + battery with cable of 60cm + solar panel	T3.5EBHZ 10/12 12V + KIT SOL EXT	2009562

## OPERATING PRINCIPLE

o AUTOSUN 2 BHZ is a complete system made up of a solar panel, a battery and a DC radio motor with electronic end-limits.

### 1 THE SOLAR PANEL

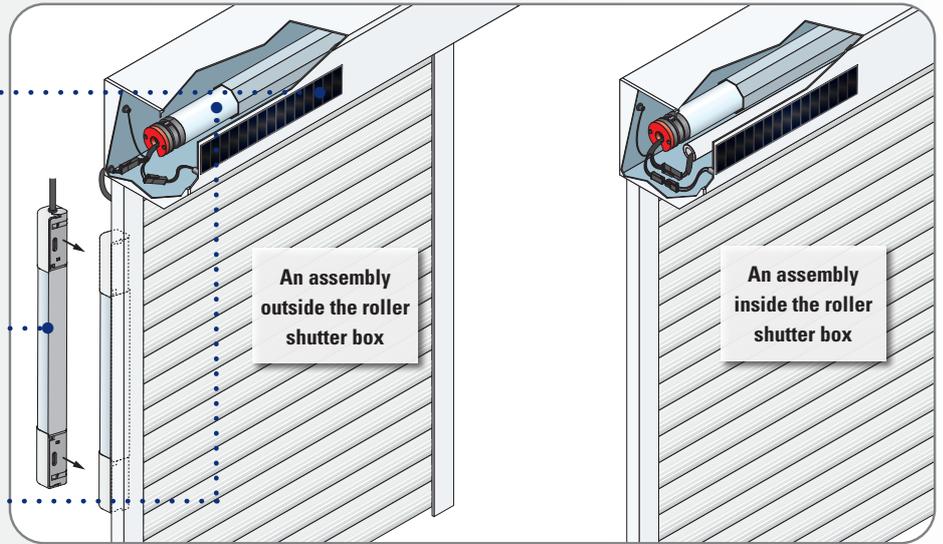
Converts solar energy into electrical energy.

### 2 THE BATTERY

Stores the energy given by the solar panel.

### 3 THE MOTOR

Uses the energy of the battery to operate the roller shutter.



## COMPATIBLE COMMANDS & AUTOMATIC DEVICES

### TO PILOT



wall & mobile 1 or 5 channels radio transmitters **without** feedback information

COMPATIBLE ONLY WITH LiveIn<sup>2</sup>



The scenario transmitter gives the opportunity to play two scenarios among those created in the LiveIn2 application.

### ANIMATION

With LiveIn2 solution, the AUTOSUN 2 BHZ motors can be controlled with a smartphone **with** feedback information



COMPATIBLE ONLY WITH LiveIn<sup>2</sup>



The addition of the BHZ exterior sun sensor enables to create conditions for automating shutters depending on the level of sunlight.



## SIMU

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