THE SOLAR SOLUTION 100% AUTONOMOUS, WITHOUT WORK

- **Autonomous motorization system** for roof and facade roller shutters, operating with solar energy, a free, clean and renewable energy.

- **No wiring**: AUTOSUN 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 has been designed to run in most geographical area.

- **Autonomy of the system**: 15 days without sun, 2 cycles per day.

- **New motor, with more intelligence, for a simple integration and installation!**

- **A wide range of batteries.**

- **A new battery charger.**

- **Compatible with sequential & functional transmitters.**
THE SOLAR SOLUTION INCLUDING A MOTOR T3.5 E HZ DC, A SOLAR PANEL AND A BATTERY

MOTOR T3.5 E HZ DC

Radio technology "simu-Hz"
• Adjustment of the end-limits: automatic, semi-automatic, manual
• 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.
• INTERMEDIARY POSTION: which can be adjusted to the user’s need. Push “STOP” button of the transmitter to move the roller shutter to the favorite position.

REFERENCES

POWER SUPPLY 12 VDC

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>TORQUE</th>
<th>SPEED</th>
<th>POWER</th>
<th>CURRENT</th>
<th>La</th>
<th>Lb</th>
<th>Lc</th>
<th>WEIGHT</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3,5 E Hz DC - 3/23</td>
<td>3Nm</td>
<td>23 rpm</td>
<td>17W</td>
<td>1.4A</td>
<td>433mm</td>
<td>457mm</td>
<td>471mm</td>
<td>0.77kg</td>
<td>x1 2009080 x10 2009083 x100 2009086</td>
</tr>
<tr>
<td>T3,5 E Hz DC - 6/18</td>
<td>6Nm</td>
<td>18 rpm</td>
<td>26W</td>
<td>2.2A</td>
<td>433mm</td>
<td>457mm</td>
<td>471mm</td>
<td>0.8kg</td>
<td>x1 2009081 x10 2009084 x100 2009087</td>
</tr>
<tr>
<td>T3,5 E Hz DC - 10/12</td>
<td>10Nm</td>
<td>12 rpm</td>
<td>30W</td>
<td>2.4A</td>
<td>433mm</td>
<td>457mm</td>
<td>471mm</td>
<td>0.8kg</td>
<td>x1 2009082 x10 2009085 x100 2009088</td>
</tr>
</tbody>
</table>

TECHNICAL CHARACTERISTICS

NEW
• 2-point connector (male) for battery
• 2-point connector (female) for solar panel

POWER SUPPLY 12 Volts
END-LIMIT Electronic system with operating limited to 3 min.
PROTECTION INDEX IP 44
POWER CABLE Long. 0.2 meters, 3x0.75 mm² wires, black H05 BBF with two connectors
SIMU-Hz RADIO FREQUENCY 433.42 MHz
SECURE COMMUNICATION Encrypted control orders
+ Rolling code with 16 million possible combinations
RANGE ~200m in free field and ~20m through 2 reinforced concrete walls
MOTOR HEAD THICKNESS 14mm
END-LIMIT ADJUSTMENT every 56 cycles during 4 cycles

STANDARDS

NEWS 2017
• Soft start function: at DOWN end limit.
• Soft stop function: at UP & DOWN end limit.
• Compatible with all SIMU Hz transmitters and automatic devices, including Hz sequential transmitter and Hz SUN sensor.
• Adjustment of the end limit with reduced speed in manual mode to ease the setting.
• Motor Sleeping and Waking up modes are directly done from the transmitter, no need to have access to the battery. The consumption is thus reduced to the minimum for storage or transportation of the roller shutter and the battery charge is then preserved. The motor will be woken up on site directly from the transmitter as well.
• New motor cable with 2 connectors 2 points and with mistake-proofing. Reduced size of the connectors to ease the integration inside the side frame.
**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 - 520 gr
- battery stick 503 x 27 x 30mm with the cable of 0.2m - 755 gr
- battery stick 503 x 27 x 30mm with the cable of 0.6m - 773 gr

**REFERENCES**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>REFERENCE x 1</th>
<th>REFERENCE x 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naked battery</td>
<td>9020808</td>
<td>9020628</td>
</tr>
<tr>
<td>Battery stick + cable 20cm</td>
<td>9020632</td>
<td>-</td>
</tr>
<tr>
<td>Battery stick + cable 60cm</td>
<td>9020633</td>
<td>-</td>
</tr>
<tr>
<td>Battery with alu cover</td>
<td>9017661</td>
<td>-</td>
</tr>
<tr>
<td>Bracket with elastic to fix naked battery</td>
<td>-</td>
<td>9020630</td>
</tr>
</tbody>
</table>

**PRODUCTS & ACCESSORIES**

**10 brackets kits to fix battery with alu cover**

**Bracket with elastic to fix naked battery**

**NEWS 2017**

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

- 1 battery stick with alu cover and its cable of 20cm.
- 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.

**EASY & QUICK DISCONNECTION**

- 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.
**SOLAR PANELS**

- Solar panel in resin with fixing holes
- 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.

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>resin panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE OF PANEL</td>
<td>photovoltaics monocristalin</td>
</tr>
<tr>
<td>PROTECTION INDEX</td>
<td>IP X4</td>
</tr>
<tr>
<td>DELIVERED VOLTAGE</td>
<td>195.8 mA maxi.</td>
</tr>
<tr>
<td>POWER</td>
<td>3.2 W</td>
</tr>
<tr>
<td>TYPE OF CABLE</td>
<td>Cable of 700mm with 2-point connector type Molex plug (male) and rubber cable-gland for impermeability</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>470 x 60 x 6 mm</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>230 g</td>
</tr>
</tbody>
</table>

**NEWS 2017**

- New solar panel with adhesive to stick it directly on the roller shutter box without making holes

**REFERENCES**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>REFERENCE x 1</th>
<th>REFERENCE x 10</th>
<th>REFERENCE x 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar panel with holes</td>
<td>9019032</td>
<td>9019031</td>
<td>9018382</td>
</tr>
<tr>
<td>Solar panel with adhesive</td>
<td>9020627</td>
<td>9020626</td>
<td>-</td>
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</tbody>
</table>

**SOLAR PANEL ACCESSORIES**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>REFERENCE x 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar panel bracket</td>
<td></td>
<td>9019683</td>
</tr>
<tr>
<td>Extension cable for solar panel (5m)</td>
<td></td>
<td>9019722</td>
</tr>
</tbody>
</table>

**BATTERY CHARGER**

**NEWS 2017**

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

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>CLASS II</th>
<th>double insulation</th>
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</thead>
<tbody>
<tr>
<td>INTENSITY DELIVERED</td>
<td>800 mA max ±10%</td>
</tr>
<tr>
<td>DIMENSIONS</td>
<td>118 x 62 x 35 mm</td>
</tr>
<tr>
<td>PROTECTION INDEX</td>
<td>IP 30</td>
</tr>
<tr>
<td>INPUT VOLTAGE</td>
<td>100-240VCA ±10%, 50/60Hz</td>
</tr>
<tr>
<td>BATTERY</td>
<td>Ni-MH</td>
</tr>
<tr>
<td>CONNECTORS</td>
<td>2-point connector Molex (Male) type</td>
</tr>
</tbody>
</table>

**REFERENCES**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>REFERENCE x 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery charger</td>
<td>9020638</td>
</tr>
</tbody>
</table>
AUTOSUN® SOLAR SOLUTION, 100% AUTONOMOUS, WITHOUT WORKS

Efficient solution
• Compatible for RENOVATION or NEW installation.
• Powerful Battery: autonomy of **15 days without sun**.
• Solar panel: one solar panel needed whatever the orientation and the motor torque.

THE SOLAR PANEL
Converts solar energy into electrical energy.

THE BATTERY
Stores the energy given by the solar panel.

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

Easy integration
• 3 different solutions: to suit all integration:
  - Naked battery with specific brackets fixed by pop rivets inside the Roller Shutter box
  - Battery in an alu cover: screwed, popped or stuck outside along the guide rail or on the wall
  - Solar panel fixed by pop rivets or adhesives on the roller shutter box or deported on the wall
• Connection of the system (motor, solar panel & battery) by connectors with poka yoke.

FOR A GOOD INSTALLATION

1. Choose the most appropriate motor torque to the dimensions of the roller shutter.
2. Load the battery before assembling or installation thanks to the battery charger.
3. Make sure that the solar panel is fixed to capture as many sun rays as possible.
4. Make sure that there is no shadow on the solar panel (roof, tree…).
KIT REFERENCES (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.

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>MOTOR TORQUE</th>
<th>SPEED MOTOR</th>
<th>REFERENCE x 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 Nm</td>
<td>23 rpm</td>
<td>2009089</td>
</tr>
<tr>
<td></td>
<td>6 Nm</td>
<td>18 rpm</td>
<td>2009090</td>
</tr>
<tr>
<td></td>
<td>10 Nm</td>
<td>12 rpm</td>
<td>2009091</td>
</tr>
</tbody>
</table>

AFTER SALES CABLE REFERENCES

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>DESCRIPTION</th>
<th>REFERENCE x 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTOR cable: enable to keep the battery and the solar panel AUTOSUN 1 with one motor AUTOSUN 2</td>
<td>9020481</td>
<td></td>
</tr>
<tr>
<td>BATTERY cable: enable to keep the motor and the solar panel AUTOSUN 1 with one battery AUTOSUN 2</td>
<td>9020639</td>
<td></td>
</tr>
</tbody>
</table>

COMPATIBLE COMMANDS & AUTOMATIC DEVICES

TO PILOT A ROLLER SHUTTER DIRECTLY

- WALL TRANSMITTER MEMORY-HZ
- RADIO WALL TRANSMITTER 1 CHANNEL
- RADIO REMOTE CONTROL 1 CHANNEL
- RADIO SEQUENTIAL TRANSMITTER
- RADIO MICRO-TRANSMITTER
- RADIO REMOTE CONTROL TSA +
- RADIO KEYPAD

TO PROGRAM, AUTOMATE AND CENTRALIZE THE SHUTTERS

- RADIO WALL TRANSMITTER 5 CHANNELS
- RADIO REMOTE CONTROL 5 CHANNELS
- RADIO REMOTE CONTROL COLOR MULTI
- RADIO REMOTE CONTROL TIMER MULTI
- RADIO REMOTE CONTROL TIMER EASY
- RADIO SUN SENSOR

FOR CONTROLLING ROLLER SHUTTERS FROM A SMARTPHONE OR A TABLET

- LIVEIN PLUG + APPLICATION

Realisation SIMU - SIMU SAS. - Capital: 5 000 000 euros. RCS Vesoul 425 650 090.

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