

**SOL-ARE®**

Patented technology

Smart solar energy management to  
recharge Mangusta and Miniwatt  
home lifts.

## SOL-ARE®

The new technological innovation patented by ARE.

The main function of SOL-ARE is to optimise the battery charging process by using solar energy produced by the photovoltaic panel.

## Our strengths points

### Energy Saving

The system automatically selects the ideal energy source (grid or photovoltaic panel) in order to reduce the amount of energy drawn from the grid, until it reaches a consumption level of ZERO.

### Hourly Programming

Being able to set the charging mode on an hourly basis, allows you to adapt the charging strategy to the daily uses of the lift, in order to minimise the consumption of electricity from the grid.

### Automatic management of the electrical power

The system decides the amount of current to draw from the grid autonomously, in compliance with the parameters defined for the minimum and maximum power.

### Automatic management of operating modes

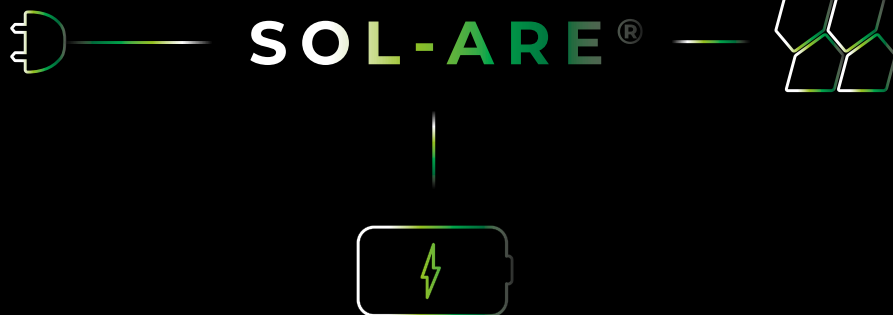
SOL-ARE® manages battery charging in a smart way, automatically changing the set operation mode, if the frequency of platform use requires it.

### Environmental Sustainability

Integrating the photovoltaic panel in a system is environmentally friendly because it promotes the use of renewable energy sources.

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SOL-ARE® has 3 operating modes that can be set on an hourly basis during the day. The draw of current from the grid depends on the level of sunlight on the panel:

The draw from the grid is ZERO if the panel is able to provide the maximum power required by the operating mode programmed for that particular hour.

If the current supplied by the panel is insufficient, the system will automatically integrate current drawn from the grid.

Thanks to the photovoltaic panel the batteries can be charged with a higher power level than the maximum power that can be drawn from the grid.

# SOL-ARE®

## Operating mode



ECO FULL

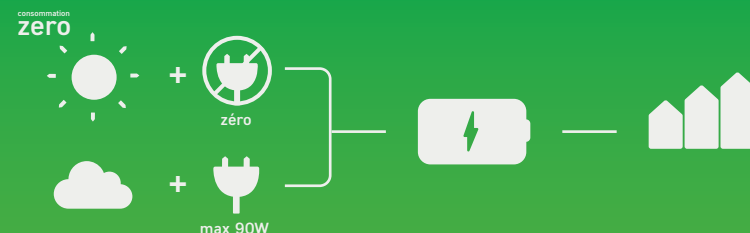


ECO HYBRID



ECO NIGHT

## Eco Full Mode



**Eco Full** is used in low or moderate traffic conditions. In this mode the maximum power\* drawn from the grid does not exceed the minimum power level necessary to guarantee that the batteries are charged for a low or moderate use of the lift.

If the photovoltaic panel is under direct sunlight, the batteries are charged with the maximum current possible, without drawing any power from the grid.

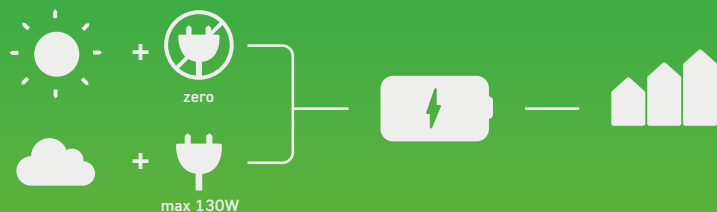
If the current supplied by the panel is insufficient to guarantee the maximum power required by the **Full** mode, the system automatically integrates it with current drawn from the grid.

If, contrary to expectations, there is an intensive use of the lift in this mode that brings the charge level of the batteries below a set level, the system will automatically switch to the **Hybrid** mode.

This charging mode has the highest energy saving level because it extends the battery charging time over a longer period.

- \* For lifting capacity < 400 kg 90W
- For lifting capacity ≥ 400 kg 130W

## Eco Hybrid Mode



**Eco Hybrid** is used in high traffic conditions or if the batteries need to be charged quickly. In this mode the system can use the maximum amount of power on the grid (value set during the installation). \*

If the panel is able to provide the maximum power requested by the **Hybrid mode**, the draw from the grid will be **Zero**, otherwise the system will automatically integrate it by drawing current from the grid up to the maximum power limit set. \*

\* For lifting capacity < 400 kg 130W  
For lifting capacity ≥ 400 kg 230W  
ou en condition de traffic intense

## Mode Eco Night



**Eco Night** is used during night time hours or when the lift is not being used very much. In this mode the system disconnects from the grid.

If the lift is used during **Night** mode or if the charge level of the batteries drops below a set level, the system will automatically switch to **Hybrid** mode.

After the batteries have been charged, the system will go back to **Night** mode.

When the sun rises and the photovoltaic panel goes back to providing sufficient power to charge the batteries, the system will automatically switch to **Eco Full** mode.

## Your energetic data in real time

You can monitor in real time the power supplied by the photovoltaic panel and the power drawn from the grid based on the operating mode set.





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