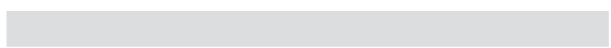


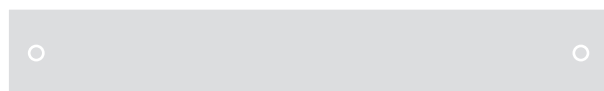
Motor



Battery Pack



Solar Panel



Solar kit

EN - Instructions and warnings for installation and use

GENERAL WARNINGS: SAFETY - INSTALLATION - USE (instructions translated from Italian)

WARNING Important safety instructions. Observe all the instructions as improper installation may cause serious damage
WARNING Important safety instructions. It is important to comply with these instructions to ensure personal safety. Store these instructions

- Before commencing the installation, check the "Product technical specifications", in particular whether this product is suitable for automating your guided part. Should it be unsuitable, DO NOT proceed with the installation
- The product cannot be used before it has been commissioned as specified in the "Testing and commissioning" chapter

WARNING According to the most recent European legislation, the implementation of an automation system must comply with the harmonised standards set forth in the Machinery Directive in force, which allow for declaring the presumed conformity of the automation. On account of this, all operations regarding connection to the mains electricity, as well as product testing, commissioning and maintenance, must be performed exclusively by a qualified and skilled technician!

- Before proceeding with the product's installation, check that all materials are in good working order and are suitable for the intended applications
- The product is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, nor by anyone lacking sufficient experience or familiarity with the product
- Children must not play with the appliance
- Do not allow children to play with the control devices of the product. Keep the remote controls out of reach of children

WARNING In order to avoid any danger from inadvertent resetting of the thermal cut-off device, this appliance must not be powered through an external switching device, such as a timer, or connected to a supply that is regularly powered or switched off by the circuit

- Handle the product with care during installation, taking care to avoid crushing, knocks, falls or contact with liquids of any kind. Keep the product away from sources of heat and open flames. Failure to observe the above can damage the product and increase the risk of danger or malfunctions. If this should happen, stop installation immediately and contact the Customer Service
- The manufacturer assumes no liability for damage to property, items or persons resulting from non-compliance with the assembly instructions. In such cases the warranty does not cover material defects
- The weighted sound pressure level of the emission A is lower than 70 dB(A)
- Cleaning and maintenance to be carried out by the user must not be carried out by unsupervised children
- Before intervening on the system (maintenance, cleaning), always disconnect the product from the mains power supply
- Check the system periodically, in particular all cables, springs and supports to detect possible imbalances, signs of wear or damage. Do not use if repairs or adjustments are necessary, because a failure with the installation or an incorrectly balanced automated system may lead to injury
- The packaging materials of the product must be disposed of in compliance with local regulations
- There must be at least 0.4 m between the driven parts and any fixed elements
- The wording on the tubular motors can be covered after assembly
- Motor with **removable** power supply cable with dedicated connector: if the power supply cable is damaged, it **must be replaced** by the manufacturer or by the latter's technical assistance service, or nonetheless by a similarly qualified person, so as to prevent any risk
- Be careful with moving shutters and keep away from them until they have lowered fully
- Do not activate the awning when maintenance activities – such as window cleaning – are being carried out nearby
- Disconnect the awning from the power supply when maintenance activities – such as window cleaning – are being carried out nearby. Warning for "shades with automatic control"

INSTALLATION PRECAUTIONS

- Prior to installing the drive motor, remove any unnecessary cables and disable any appliance not required for motorised operation
- Install the manoeuvring assembly for manual release at a height below 1.8 m
NOTE: if removable, the manoeuvring assembly must be kept close to the door
- Make sure that the controls are kept at a safe distance from moving parts, while allowing a good view of these.
The manoeuvring assembly of a switch kept manually closed must be located in a position that is visible from the guided part but far from moving parts. It must be installed at a minimum height of 1.5 m
- The fixed control devices must be installed in a visible position
- For drive motors that allow for accessing unprotected moving parts once they have been installed, such parts must be installed 2.5 m above the floor or other surface from which they can be accessed

BATTERY

- Failure to observe the following rules can cause a fire or the battery to explode
- Use the battery exclusively for its intended use
- Protect the battery against heat sources and from water
- Do not charge nor use batteries that have fallen or are damaged
- Do not connect the battery's positive or negative pole with metal objects
- Charge the battery using the battery charger/power supply unit supplied as an accessory under supervision
- Do not open the battery compartment and do not make changes to it
- The battery's efficiency decreases after prolonged use or if the battery is charged frequently
- Charge the battery using the power supply/battery charger supplied separately

1 PRODUCT DESCRIPTION AND INTENDED USE

The kit contained in the package includes a solar heating panel, a battery back and a tubular motor. It is used to move an automation (e.g. a shutter) without the aid of electricity but using solar energy stored in the battery.

The system is thus self-sustaining as, once installed correctly, the energy stored in the battery should always be sufficient to move the automation.

In case of emergency, following excessive use of the automation or an extended shortage of solar energy storage, it will nonetheless be possible to charge the battery using a USB-C battery charger.

The solar panel is connected directly to the battery which, in the presence of sunlight, will be charged continuously. In turn, the tubular motor is connected to the battery and will use the stored energy to move the automation.

In order for it to be compatible with the system, the tubular motor must belong to the "NEXT FIT SOLAR" series.

Do not use it for any other purpose! The manufacturer declines all liability for damage resulting from improper use of the product or any other use than that specified in this manual.

For all additional details on the motor's installation and use, consult the respective manual supplied with the product.

2 CHOOSING THE MOTOR

The tables are purely indicative and are examples accumulated by taking into account the following parameters:

- Pitch of the slat: 42 mm
- Weight of the slat per square metre: 2.45 kg
- Slat thickness: 8 mm
- Final weight of the slat per linear metre: 0.321 kg
- Diameter of the tube: 54 mm.

The website contains tables that can be modified in relation to the variation of the above parameters.

Width	Width									
	500	600	700	800	900	1000	1100	1200	1300	1400
1000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1400	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1500	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1600	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1700	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1800	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1900	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2400	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2500	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2600	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2700	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2800	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2900	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
3000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm
3100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm
3200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm
3300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm
3400	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm
3500	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm
3600	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm
3700	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm
3800	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
3900	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
4000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm

Width	Width									
	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm

Width	Width									
	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1400	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1500	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1600	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1700	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1800	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1900	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
2100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm
2200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm
2300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2400	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2500	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2600	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2700	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2800	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2900	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
3000	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm
3100	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm
3200	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm
3300	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm
3400	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3500	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3600	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3700	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3800	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3900	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
4000	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm

Width	Width									
	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400
1000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1400	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1500	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1600	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm
1700	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
1800	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
1900	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2000	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2100	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2200	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2300	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm
2400	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm
2500	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2600	10 Nm	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2700	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2800	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2900	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3000	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3100	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3200	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3300	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3400	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3500	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3600	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3700	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	Impossible
3800	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	Impossible	Impossible
3900	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	Impossible	Impossible	Impossible
4000	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	Impossible	Impossible	Impossible	Impossible

Width	Width					
	3500	3600	3700	3800	3900	4000
1000	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1100	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1200	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1300	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm	6 Nm
1400	6 Nm	6 Nm	6 Nm	6 Nm	10 Nm	10 Nm
1500	6 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
1600	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
1700	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
1800	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
1900	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2000	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm	10 Nm
2100	10 Nm	10 Nm	10 Nm	20 Nm	20 Nm	20 Nm
2200	10 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm

	Width					
Width	3500	3600	3700	3800	3900	4000
2300	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2400	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2500	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2600	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2700	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2800	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
2900	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3000	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3100	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3200	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3300	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm	20 Nm
3400	20 Nm	20 Nm	20 Nm	20 Nm	Impossible	
3500	20 Nm	20 Nm	Impossible			
3600	20 Nm	Impossible				
3700		Impossible				
3800			Impossible			
3900				Impossible		
4000					Impossible	

3 NUMBER OF SOLAR PANELS AND THEIR ORIENTATION

Indicated below is the recommended number of solar panels in relation to their orientation with respect to the sun.

Motor torque	Recommended number of panels	
	Orientation EAST - SOUTH - WEST	Orientation NORTH
6 Nm	1	1
10 Nm	1	2
20 Nm	2	Not recommended

Note: the estimate of the number of panels is based on 4 W panels. Where 2 panels are estimated, this means 2 x 4 W panels or a 1 x 7 W panel.

4 INSTALLING THE KIT

4.1 - Battery pack

4.1.1 - Switch ON-OFF

The battery pack is equipped with an "ON-OFF switch" which has the following two main functions:

- to limit self-discharging of the battery before the product's commissioning (to be used also when the product will not be used for extended periods of time)
- to facilitate all the installation phases.

4.1.2 - Assembling the battery pack

- The ideal solution is to mount the battery pack near the motor.
- Install the battery pack and the relative connector exclusively inside the box.
- The battery and the connecting cables must not be exposed to direct contact with water.
- The pack must be fastened using the support clamps provided so that the roller shutter does not get damaged.
- Observe the battery charge. If necessary, before proceeding with the installation, charge the battery using the battery charger.

Avoid leaving loose or hanging cables.

Do not extend the connecting cable with extensions to/from the motor/battery/solar panel. Move all connecting cables away from the zone where the rolling shutter moves.

Make sure that the connections have been made correctly and tightly. Before working on the motor or the automation, detach the battery from the motor.

Restore the connection only after having disconnected the power supply.

4.2 - Mounting the solar panel

4.2.1 - Positioning recommendations

The solar panel must be positioned outside the house and must not be obscured by any object, including, for example, glass panes, hinged shutters, trees, roofs or walls.

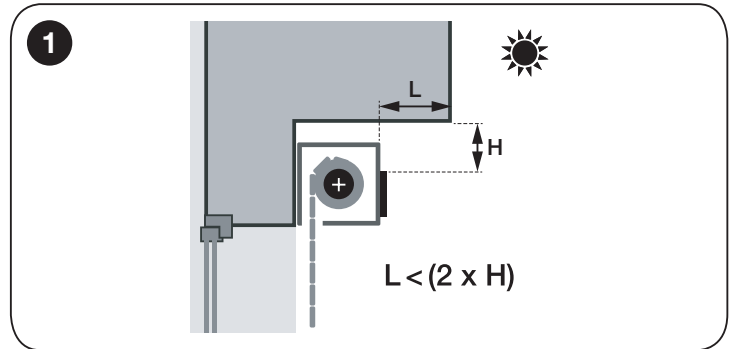
It is advisable to favour at least one hour a day of direct sunlight on the panel. Mount the panel so that it receives as much direct sunlight as possible. Avoid shades from forming on the solar panel.

The connectors cannot be exposed outdoors.

The ideal solution is to mount the solar panel near the motor or the box.

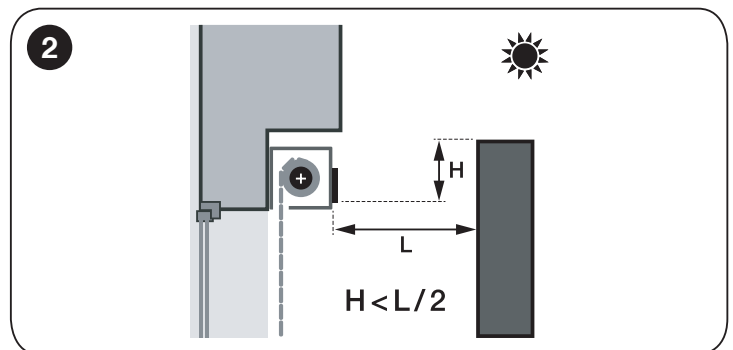
• Roof overhangs or similar structures

Make sure that the solar panel faces the sky unobstructed. We suggest a cantilever less than double the distance towards the roof cantilever (fig. 1).



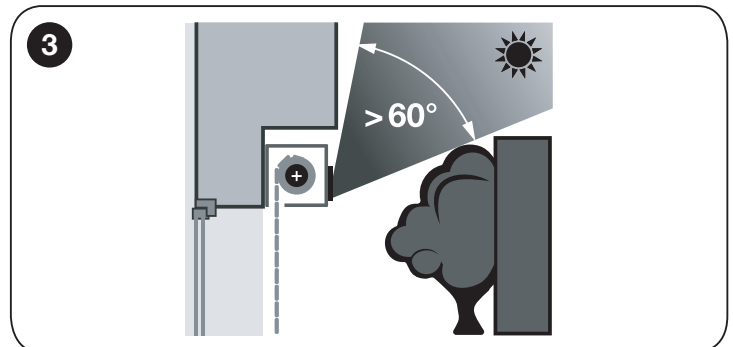
• Obstacles in front of the solar panel

Obstacles lying in front of the solar panel reduce the system's efficiency. For a sufficiently high-performing charge, we suggest a minimum distance as indicated in (fig. 2).



• Limited view of the sky

We often find a combined presence of obstacles and overhangs. If this occurs, make sure that the width of the angle without obstacles is at least 60° (fig. 3).

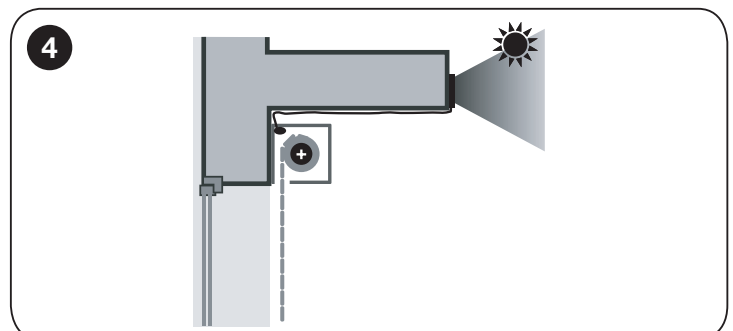


4.2.2 - Improving the solar performances

If the local conditions are inadequate for guaranteeing efficient operation of the solar panel, the following improvements can be made.

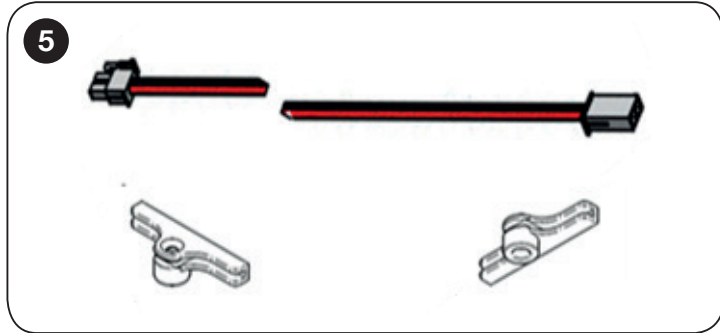
• Shift the solar panel to the front of the building

If there is too much overhang, for example due to a balcony, the panel can be shifted to the front edge of the balcony. Extension cables of various lengths are available to facilitate this type of installation (for further details contact the Nice technical assistance service) (fig. 4).



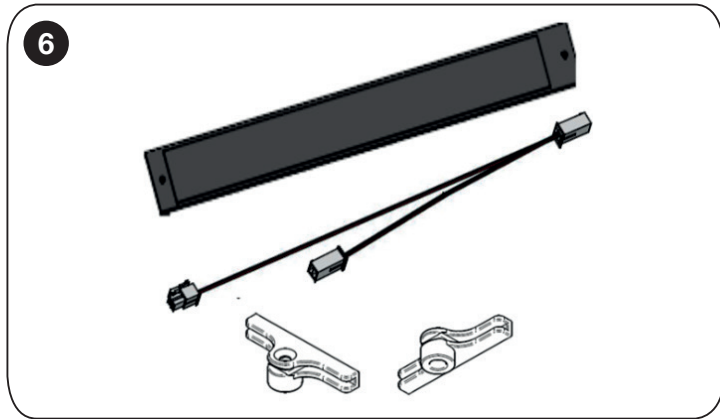
• Reposition the solar panel in an optimal position

If the panel is completely under the shade, it can be shifted to another side of the building. Extension cables of various lengths are available to facilitate this type of installation. When mounting the device on plaster, use wall-mounted spacers available for the solar panel (for further details, contact the Nice technical assistance service) (fig. 5).



• Double the solar energy

Nice solar heating systems can function with two solar panels. If the solar performance is insufficient, despite all the optimisation measures, a second solar panel can be installed to increase the solar performances (for further details contact the Nice technical assistance service) (fig. 6).



4.2.3 - Fastening the solar panel

- The device can be fastened in two ways depending on the version:
 - on a smooth and clean surface using the two rubber adhesives located on the back (solar panel cod. 131251903)
 - using two suitable screws/blind rivets (cod. 16 307.1001 - optional) and passing them through the recesses on the panel (solar panel cod. 131247003 - optional).
- Tighten the screws while being careful not to damage the panel.**

Avoid leaving loose or hanging cables.

4.3 - Connect and disconnect the battery cables

The steps to be carried out for connecting and disconnecting the connections from the battery (Fig. 7) are listed below.

For the connection:

- shift the mechanical switch to OFF
- insert the connector coming out of the motor
- insert the connector coming out of the solar panel
- shift the mechanical switch to ON

For the disconnection:

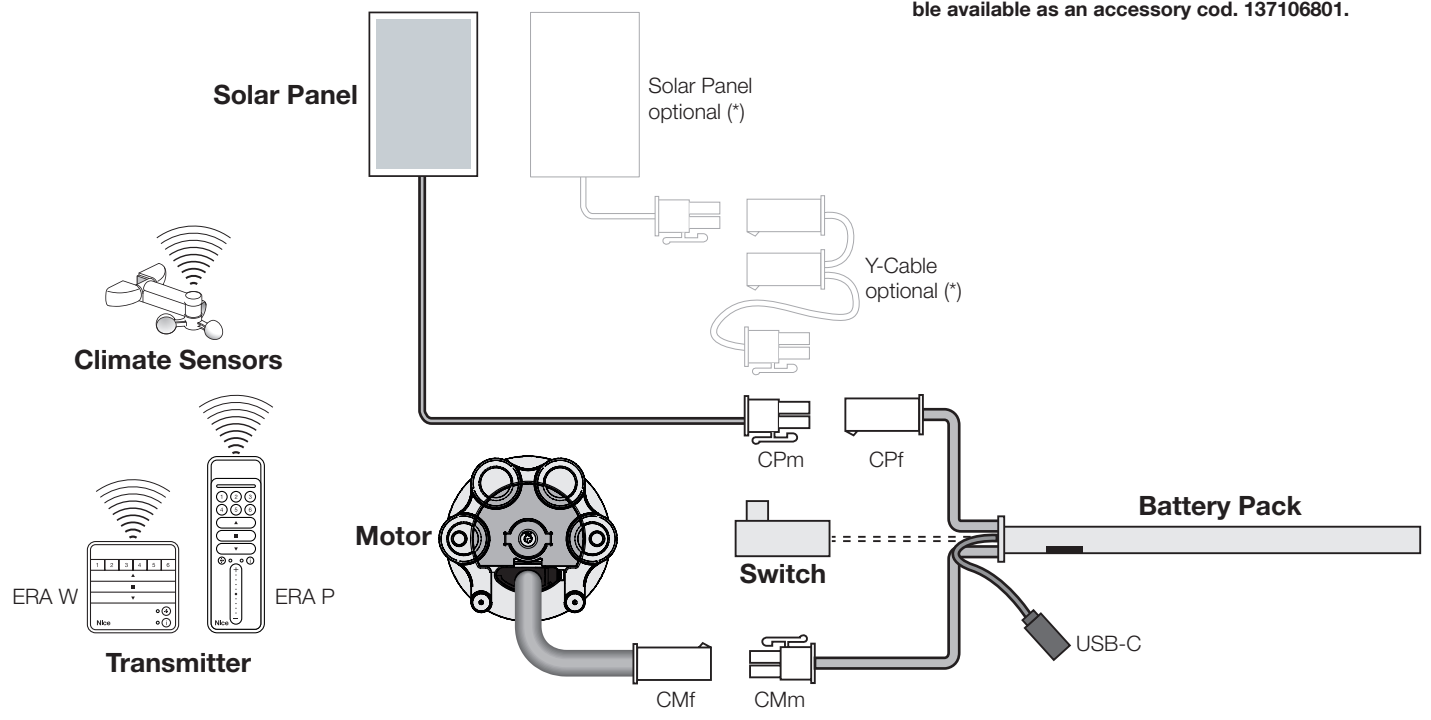
- shift the mechanical switch to OFF
- remove the connector coming out of the motor
- remove the connector coming out of the solar panel

4.4 - Estimating the battery charge percentage

To estimate the battery charge percentage:

- use the tester to measure the "Vbat" value, namely the voltage [Volt] measured at the battery terminal (CMm - fig. 7), where the motor is normally connected.
- obtain the estimated charge value by applying the following formula
 $charge\% = (Vbat - 13.5) \times 33.3$
 For example, if the Vbat value measured is equal to 15 V, we will have
 $(15 - 13.5) \times 33.3 = 50\%$ (approx.).

7 Connection example



(*) A second additional solar panel (not supplied) can only be connected using the appropriate Y-shaped cable available as an accessory cod. 137106801.

4.5 - Function of the ON/OFF switch

The battery pack is standard-supplied with a switch which is mainly used to:

- store the product in the warehouse without discharging the battery (set to OFF);
- keeping the system OFF when it is not running or if no transmitter has been memorised.

Warning! – Make sure that if the switch is kept ON there is at least one transmitter memorised.

Warning! – Make sure that the switch is kept ON during charging via USB-C.

Below is a summary table of the switch positions.

Switch position	Battery pack status
OFF	Battery stored in the warehouse
OFF	Final application in the warehouse
OFF	Battery installed but no transmitters have been memorised
ON	Normal use of the battery and at least one memorised transmitter
ON	During battery charging through the USB-C connector

Warning! – When the instructions specify to switch the motor off (for example in the motor manual), disconnect the motor from the battery (disconnect CMm/CMf - Fig. 7).

Disposal of the product

As in installation, also at the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel.

This product is made of various types of materials, some of which can be recycled while others must be scrapped. Seek information on the recycling and disposal systems envisaged in the local regulations in your area for this product category.

Warning! – Certain parts of the product can contain pollutants or dangerous substances that, if dispersed into the environment, could be detrimental to the environment itself and to human health.

As indicated by the symbol alongside, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories for disposal, according to the methods set forth in the regulations in force in your area, or return the product to the retailer when purchasing a new equivalent product.

Warning! – Local regulations may envisage the application of heavy fines in the event of improper disposal of this product.



The packing materials of the product must be disposed of in compliance with local regulations.

Technical specifications

Warning! – System sized on average for 2 cycles per day (where one cycle consists of a down manoeuvre followed by an up manoeuvre).

SOLAR PANEL 4W (standard)	
Dimensions (mm)	470 x 60
Protection rating	IP67
Charge from solar panel Vm (V) Im (A)	18 V 0.23 A roughly 4 W
Solar panel for fastening with adhesive	code 131251903 (standard)
Solar panel for fastening with screws/rivets	code 131247003 (optional)

SOLAR PANEL 7W (optional)	
Dimensions (mm)	670 x 60
Protection rating	IP64
Charge from solar panel Vm (V) Im (A)	22V 0.32 A roughly 7 W
Solar panel for fastening with screws/rivets	cod. 234006101

For combination with other types of compatible solar panels, consult the Nice catalogue or contact the Nice technical assistance centre.

BATTERY PACK

Type of battery	Lithium Ion
Battery dimensions (mm)	500 x Ø 23
Battery rated voltage (V)	14.4
Operating voltage (V)	10.8 – 16.8
Rated capacity (Ah)	2.3
Rated capacity (Wh)	33
Maximum output power (W)	50
Charge voltage from solar panel (V)	18.0
Charge current from solar panel (A)	0.55
Operating ambient temperature (°C)	-20°C +70°C
Room temperature compatible with charging (°C)	0°C +50°C
Charge time via USB-C	USB-C charging Time: From 0% to 100%: Time[h] ~ = 70 / Adapter power From 20% to 80%: Time[h] ~ = 35 / Adapter power es. Adapter Power PD da 30W. From 0% to 100%: Time[h] ~ = 70 / 30 = 2,33h = 2h e 20 min From 20% to 80%: Time[h] ~ = 35 / 30 = 1,16h = 1h e 10min

COMPATIBLE ACCESSORIES

Charge from USB-C Battery charger/Powerbank	Adapter charging protocol: PD3.0
	Adapter charging input voltage: PD3.0 / PD2.0: 5V / 9V / 12V / 15V / 20V Non-PD 3.0 / non-PD2.0: default 5V
	Adapter charging input current: PD3.0 / PD2.0: Current of adapter's maximum voltage Non-PD 3.0 / non-PD2.0: ≤ 0.9A
	Adapter max charging Power in non PD: 4W
	Adapter max charging Power in PD: 40W
	It is possible to use compatible USB-C extensions

Simplified EU declaration of conformity

The manufacturer, Nice S.p.A., declares that the type of product conforms to Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: <https://www.niceforyou.com/en/support>.



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