

STATE AID FOR SELF-CONSUMPTION PHOTOVOLTAIC INSTALLATIONS

In your country, there may be aid to promote the installation of self-consumption photovoltaic systems, which normally include both an **investment premium** and surplus resale tariffs, both depending on the installed power.

Ask your supplier for information about your company's eligibility.

THE ADVANTAGES

REDUCED ENERGY COSTS

- Self-produced solar energy limits costly dependence on the grid.

STRATEGIC INVESTMENT

- Sustainability can positively influence the relationship with customers and partners.

CO₂ SAVINGS

- Photovoltaic is a cost-effective way to meet CO₂ targets.

For a typical installation of **20KW** we reduce the **CO₂** footprint in **15.000Kg** and that is equivalent to plant **750 trees/year**



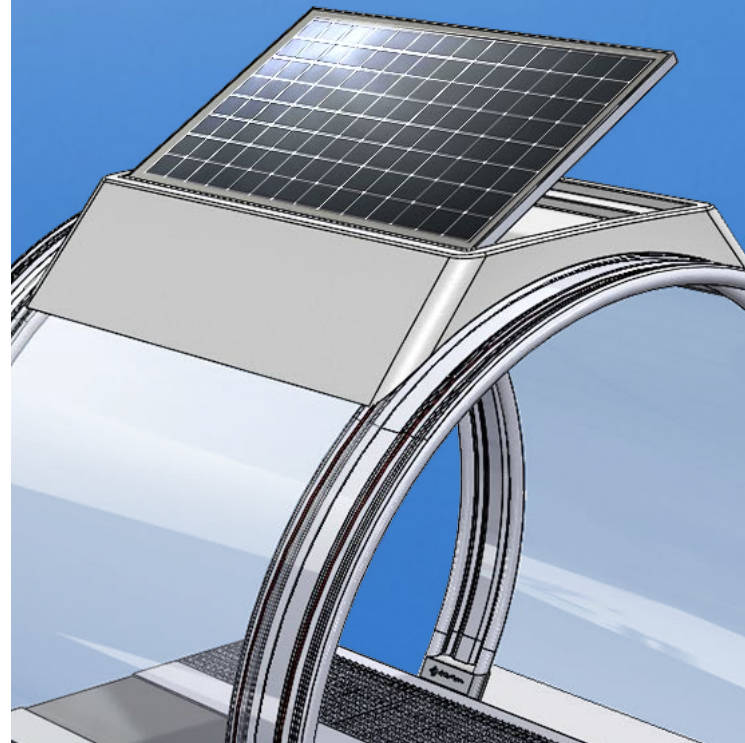
San Andres Kalea, 10
01170 Legutio, Araba
Spain

+34 945 032 028
mail@idderman.com
idderman.com



ADJUSTABLE PHOTOVOLTAIC SOLAR SYSTEM

REDUCED ENERGY COSTS
STRATEGIC INVESTMENT
CO₂ SAVINGS



THE PANELS CAN BE ORIENTED IN THE **4 DIRECTIONS**

THE CONCEPT

The Pholarus system offers a solution for using galleries for carpet lifts for skiers (1) as a support for a photovoltaic solar installation adapted to the needs of each ski resort.



(1) Pholarus can be installed in any of Idderman's various Universal Gallery For Skiers models, new or existing (AVTA pending).

SYSTEM BENEFITS

The climatic conditions of the mountain make every element subject to the actions of wind and snow. On the other hand, the correct orientation of the solar panels is essential to obtain good performance. Pholarus keeps the panels in protection mode if the conditions are not suitable and orients the panels when they are. For this, the system has:

- **ANEMOMETER**, to measure the wind speed.
- **THERMOMETER**, to control the outside temperature.
- **TIMER**, to optimize operating time.
- **HEATING/VIBRATION SYSTEM**, to prevent the appearance of ice in the system.
- Rotary and/or linear **ACTUATORS**, to move the panels.
- **WIFI CONNECTION** point and/or a communication card.

All these systems will be controlled through a mobile application which will provide the user with information on the conditions and operation of the system.

Registered design. Patent pending.

SUSTAINABLE QUALITY COMPONENTS

SUNPOWER MAXEON 3 SOLAR PANELS, COVERED BY A 40-YEAR WARRANTY

- Designed to **maximize energy** generation through leading efficiency, enhanced performance in high temperatures, and higher energy conversion in low-light conditions like mornings, evenings and cloudy days.
- Engineered to power through **all types of weather** conditions with crack resistant cells and reinforced connections that protect against fatigue and corrosion, to an electrical architecture that mitigates the impact of shade and prevents hot-spot formation.

- Nominal power **430w**, efficiency **22'7%** and Rated Voltage **70'4 Volts**.

Operating Condition And Mechanical Data	
Temperature	-40°C to +85°C
Impact Resistance	25 mm diameter hail at 23 m/s
Solar Cells	112 Monocrystalline Maxeon Gen 3
Tempered Glass	High-transmission tempered anti-reflective
Junction Box	IP-68, Stäubli (MC4), 3 bypass diodes
Weight	21.2 kg
Max. Load	Wind: 2400 Pa, 244 kg/m ² front & back Snow: 5400 Pa, 550 kg/m ² front
Frame	Class 1 black anodized (highest AAMA rating)



The Solar Industry's Longest Warranty

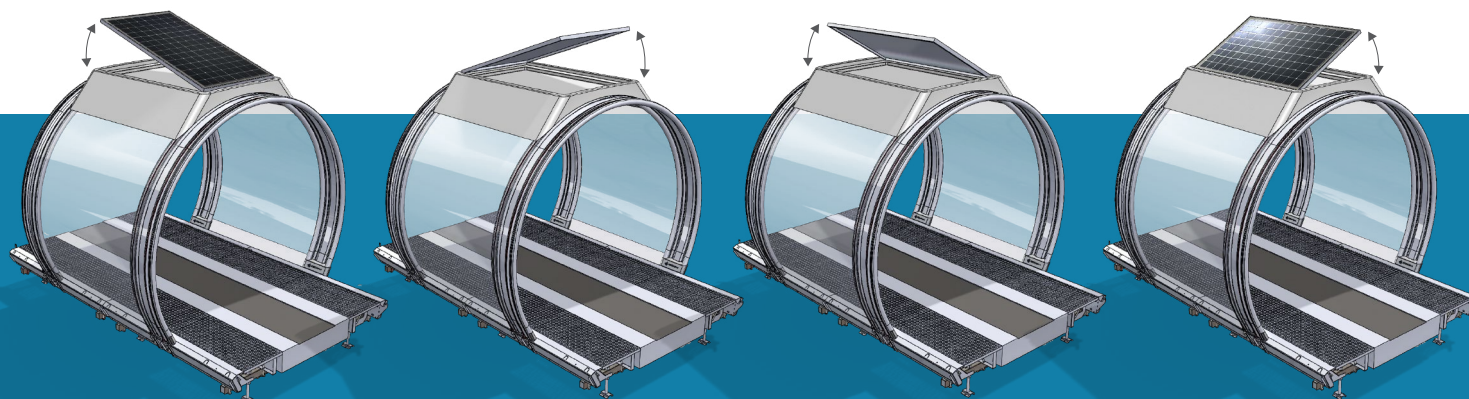
SunPower Maxeon panels are covered by a 40-year warranty backed by extensive third-party testing and field data from more than 33 million panels deployed worldwide.

Product and power coverage 40 Years
 Year 1 minimum warranted output 98.0%
 Maximum annual degradation 0.25%

FRONIUS INVERTER



- Smart technology.
- Fronius smart inverters ensure particularly efficient use of electricity from photovoltaic systems.
- 75 years of experience
- Made in Austria
- 5 year extendable warranty



*Pholarus offers the possibility of tilting the panels in the **4 directions** in order to improve their performance*