

Energy Integrated Roof Solutions

It is a **premium solar technology** solution developed in Switzerland, offering high efficiency and durability.

It is **suitable for most roof types**, can be used for roofs and facades, for residential or industrial buildings and the installation is as easy as the installation of regular metal roofs.

It offers all benefits of **solar green energy** (in any type of system: off grid, on grid or hybrid) in an integrated architectural solution that preserves the intended aesthetic of the building. It is offered as integrated panel or retrofit existing metal roof that fit the technical specifications.

BENEFITS

- Integrated solution
- A truly renewable energy source
- Reduce your impact on the environment
- Significantly reduces energy bills
- Affordable and easy to install
- Increased home value

ADVANTAGES

- Integrated solution to produce and store green energy
- Roof with integrated solar cells combined with inverter and batteries
- Fully scalable and modular, adapted to your needs or roof space
- Easy installation with no extra costs
- Different panel sizes available from 28 to 165 Wp
- Durable, flexible and engineered for all-weather conditions
- Solution suitable for most roof types
- Suitable for residential and industrial buildings
- High energy yield in all light conditions due to CIGS technology
- Durable non-breakable Swiss made solar panels
- Low weight and built to last
- Non penetrating installations – no risk of water leakage or roof damage
- Works on roofs with intermittent sunlight
- Manufactured in Europe

DESCRIPTION

The eRocca is a range of flexible and lightweight CIGS solar PV modules specifically designed for application on buildings and transportation platforms (such as buses, vans and trucks).

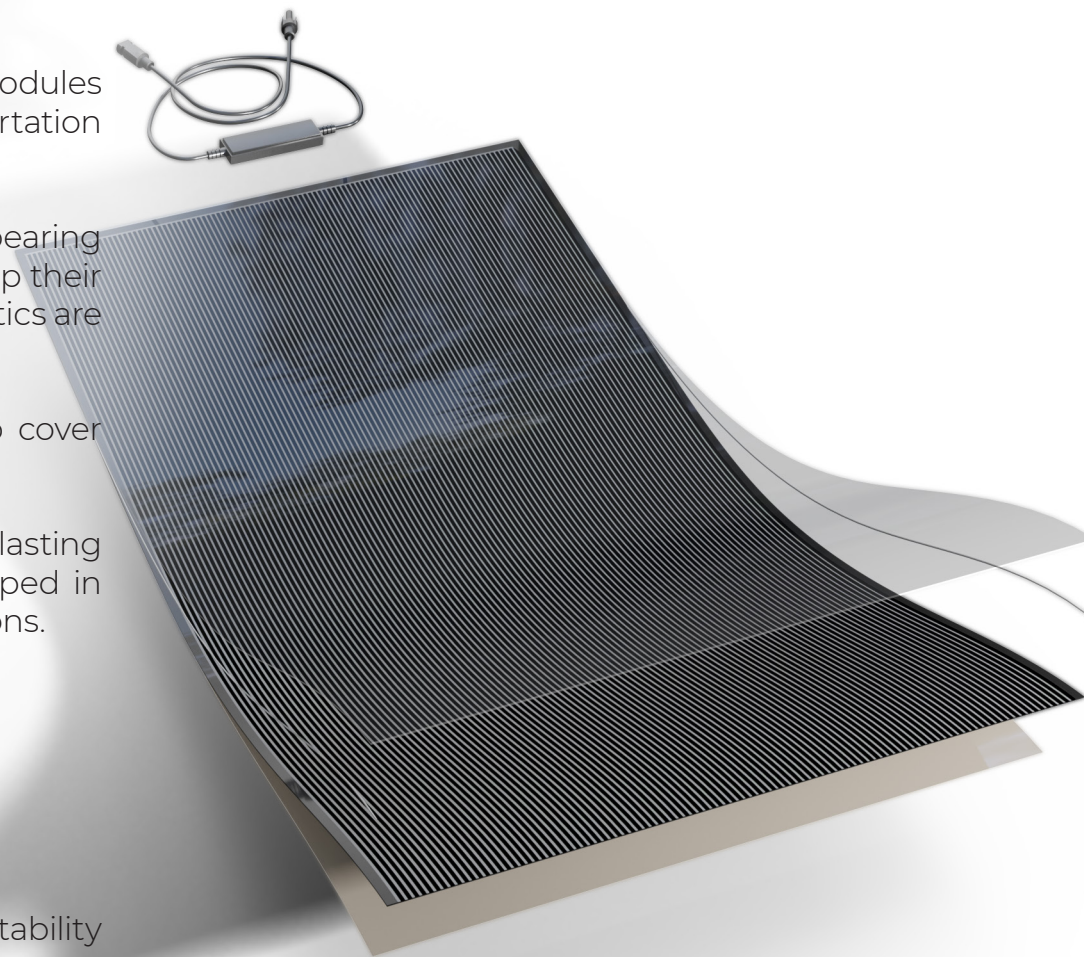
The modules can be applied on surfaces with limited load bearing capacity, on curved surfaces, on membranes that need to keep their waterproofing and should not be penetrated, or where aesthetics are critical such as facades and residential roofs.

The modules come in different sizes which can be used to cover entire surfaces.

The modules are made of high-quality materials which give a lasting performance and are based on a unique technology developed in Switzerland to deliver high performance in targeted applications.

FEATURES

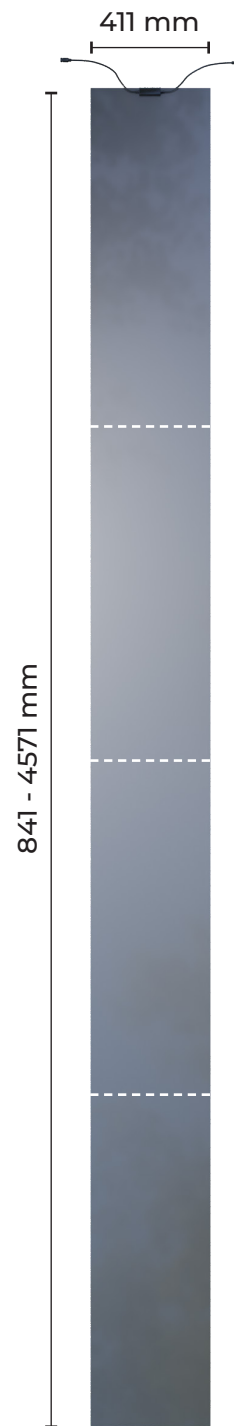
- Ultra-low weight, < 2kg / m²
- Applicable on curved surfaces – bendable on a 20cm radius
- Super thin (<2MM) and aerodynamic
- High energy yield due to shadow tolerance and temperature stability
- Special adhesive option for easy installation on various surfaces
- Beautiful aesthetics - uniform full black design
- Robust and vibration resistant - micro cracks free
- Multiple length options (~1m to ~6m) to meet different needs
- Low environmental footprint
- Swiss technology, made in Europe





Dimensions			4.6m	3.8m	3.1m	2.3m	1.6m	0.8m
Power			165W	140W	110W	85W	55W	28W
Length		[mm]	4571 ±2	3825 ±2	3079 ±2	2333 ±2	1587 ±2	841 ±2
Width		[mm]	411 ±1	411 ±1	411 ±1	411 ±1	411 ±1	411 ±1
Thickness of module								
without backside adhesive		[mm]	1.5 ±0.2	1.5 ±0.2	1.5 ±0.2	1.5 ±0.2	1.5 ±0.2	1.5 ±0.2
with backside adhesive		[mm]	2.2 ±0.2	2.2 ±0.2	2.2 ±0.2	2.2 ±0.2	2.2 ±0.2	2.2 ±0.2
Thickness at J-Box		[mm]	20 ±1	20 ±1	20 ±1	20 ±1	20 ±1	20 ±1
Weight								
without backside adhesive		[Kg]	3.6	3	2.4	1.9	1.3	0.7
with backside adhesive		[Kg]	5.3	4.4	3.5	2.7	1.8	1
Electrical characteristics at STC ¹			165W	140W	110W	85W	55W	28W
Nominal power	P _{mpp}	[W]	165	140	110	85	55	28
Tolerance		%	-10 / +10	-10 / +10	-10 / +10	-10 / +10	-10 / +10	-10 / +10
Voltage at nominal power	V _{mpp}	[V]	35.1	35.1	35.1	37	35	34
Current at nominal power	I _{mpp}	[A]	4.71	4.02	3.13	2.29	1.54	0.81
Open circuit voltage	V _{oc}	[V]	49	49	48	49	47	46
Short circuit current	I _{sc}	[A]	5.18	4.55	3.92	2.53	1.82	0.9
Maximum system voltage	IEC	[V]	1000	1000	1000	1000	1000	1000
Maximum serial fuse rating	I	[A]	10	10	10	10	10	10

¹ STC: 1000 W/m², AM1.5G, 25°C, stabilized module state. We continuously develop our products. Electrical and physical properties are subject to change without prior notice.



Thermal Characteristics

Temperature coefficient	Voc	[% / °C]	-0.3
Temperature coefficient	Isc	[% / °C]	0.01
Temperature coefficient	Pmpp	[% / °C]	-0.35

Operating Conditions

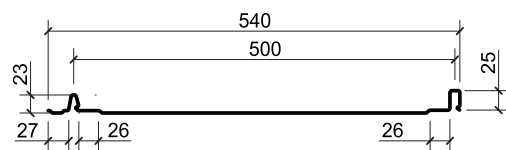
Temperature range	[°C]	-40 to +85
Maximum mechanical load ¹		2400 Pa, 245 Kg / m ²

Additional Information

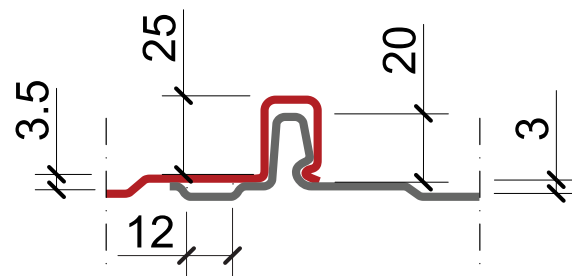
Cell type	Flexible CIGS on Polyimide
Junction Box	Front side including bypass diode, IP68 for box, MC4 type connectors, 400mm long stranded wire 2.5 mm ²
Encapsulation	Fluoropolymer front sheet / plastic back sheet
Performance guarantee	10 years on 90% of Pmpp under STC & 20 year on 80% of Pmpp under STC
Warranty	5 years workmanship after delivery date
Certification	IEC 61215:2016 testing underway; IEC 61730:2016 testing underway
Safety Class	II

¹ Higher load ratings can be met with additional support, subject to testing

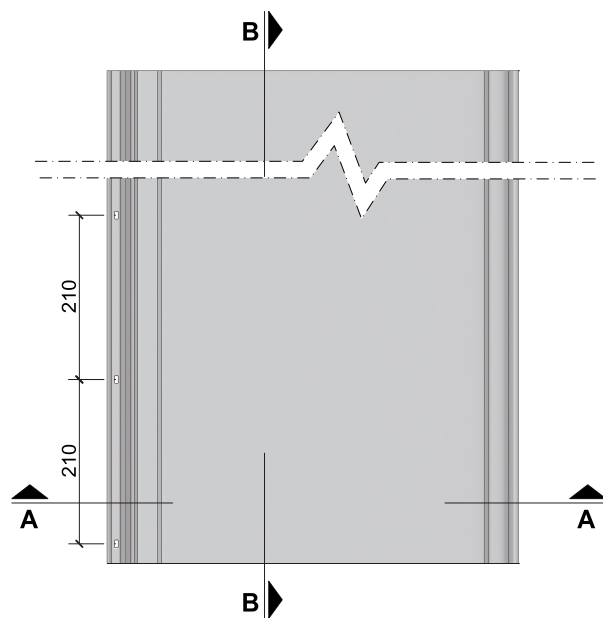
Click Metal Sheet



A-A Section



Joint detail



B-B Section

Total width
540 mm

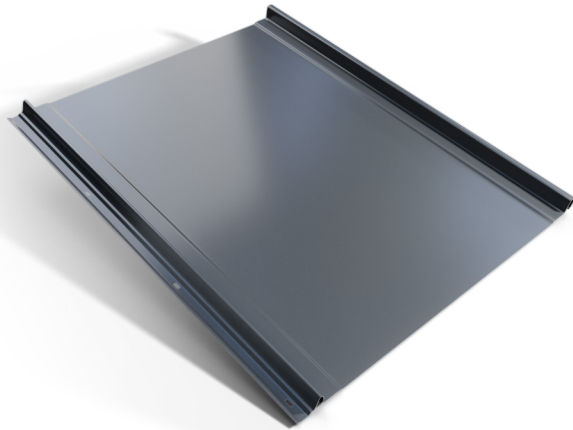
Useful width
500 mm

Profile depth
25 mm

Battening distance
250 - 300 mm

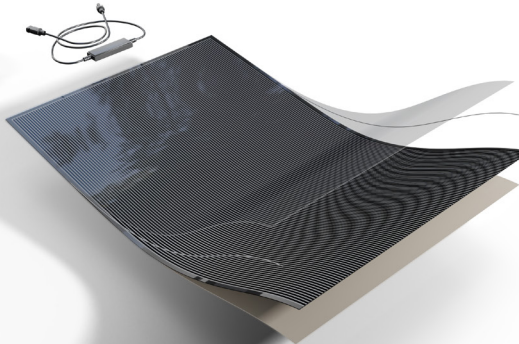
Minimum
mounting slope
12°

eROCCA Click Metal Sheet



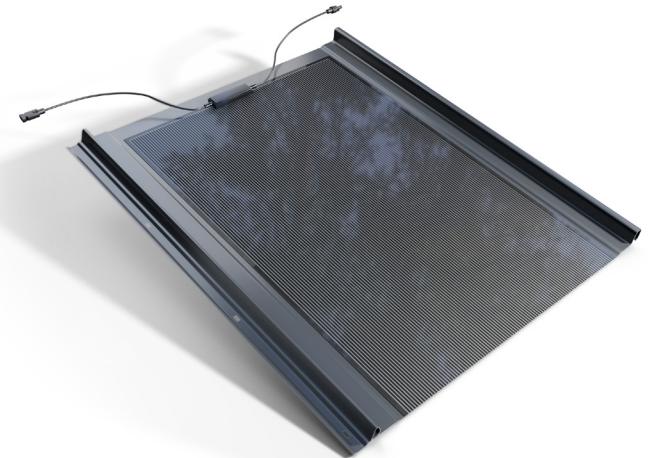
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eROCCA Solar Film



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eROCCA Integrated Roof Solutions



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