

# ROOF Collection

## RTL-CD



System Photonics' photovoltaic tiles can replace or be integrated with a traditional roof, maintaining or improving its insulating and protective covering. These aesthetic, sturdy and reliable products are intended specifically for applications on roofs. This is the best choice for a photovoltaic roof that does not compromise between aesthetics and functionality.

## Benefits

### Architectural integration

System Photonics' photovoltaic tiles are perfect for architectural integration as they have no aluminum frame and are also elegant and sturdy. The tiles come in 13 different colors and their passive elements, made in the same size and with the same ceramic material as the active module, make for solutions that were thought to be impossible until today.

### Technological innovation

The use of a thin 3mm ceramic back sheet and an encapsulant 5 times harder and 100 times more resistant than those normally used (EVA, PVB) guarantees unparalleled durability and reliability.

### Ease of installation

The module is extremely easy to install in the place of normal tiles. The rails with adjustable brackets make it extremely easy to install the tiles by applying them on the existing structure.



**System Photonics SpA** has created the first ever photovoltaic system that can be perfectly integrated in the architecture and that combines the versatility of a ceramic sheet with the new generation of photovoltaic modules, bringing design to the forefront. This exclusive system, based on cutting edge technology, combines both aesthetics and functionality.

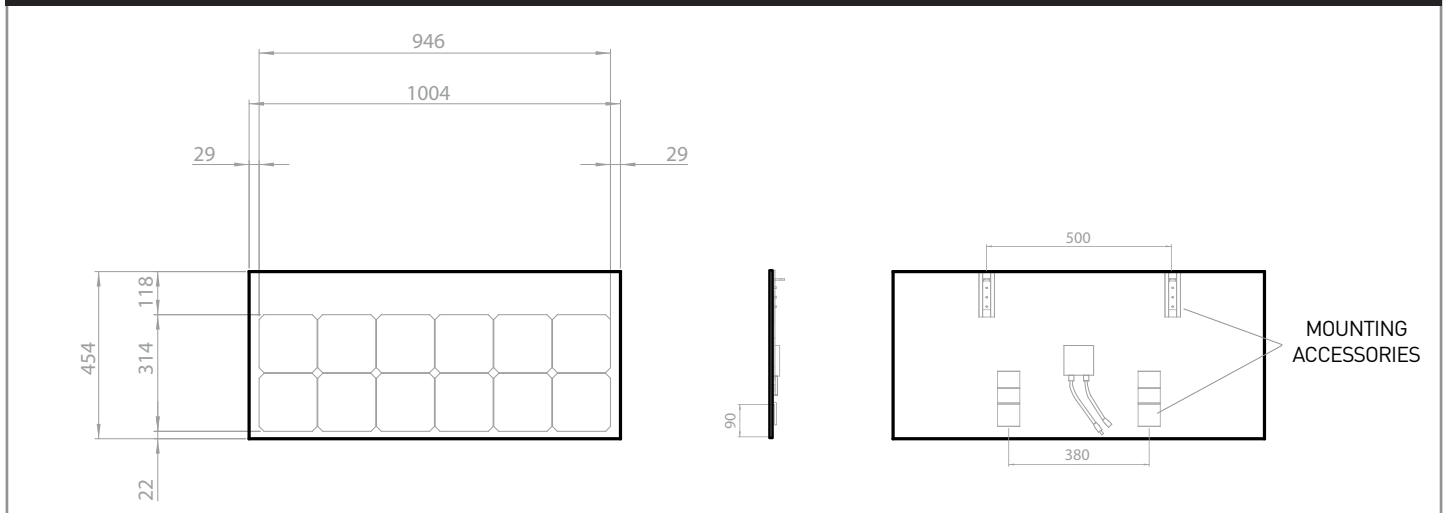
# Electrical characteristics

The following were measured in standard test conditions (STC) with radiation at 1000W/m<sup>2</sup>, an air mass of AM 1.5 and cell temperature at 25°C

			RTL-CD 45
Rated power (+/- 3%)		P <sub>nom</sub>	45 W
Open circuit voltage		V <sub>oc</sub>	7.34 V
Short-circuit current		I <sub>sc</sub>	8.46 A
Voltage at max power		V <sub>mp</sub>	5.71 V
Current at max power		I <sub>mp</sub>	7.96 A
Max reverse current			12 A
Max system voltage		IEC	1000 V
Operating temperature		IEC	Between -40 °F and +85 °F (-40 °C and +85 °C)
Temperature coefficients	Power	P <sub>mp</sub>	-0.47 % / K
	Voltage	V <sub>oc</sub>	-0.36 % / K
	Current	I <sub>sc</sub>	+0.03 % / K
	NOCT*		44.5 °C

\*Typical value measured with Black backsheet

# Dimensions



# Mechanical data

Cells	Type	Single-crystal silicon
	Number	12 cells (6 x 2)
Front cover	0,125" (3.2 mm) tempered glass	
Junction box	IP-65 with 1 bypass diode	
Outlet cables	Cable length: 39" (1000 mm) / MC4 connectors	
Dimensions	39.52" x 17.87" x 0.32" (1004 mm x 454 mm x 8 mm) height of the junction box 0.87" (22 mm)	
Weight	17,2 lb (7,8 kg)	
Max load	Certified 5400 Pascal (112 lb/sq.ft.) Tested up to 700 kg/m <sup>2</sup> (143 lb/sq.ft.)	

# Warranties and Certifications

Warranty	25-year power warranty		
	10-year product warranty		
Certifications	IEC 61215		
	IEC 61730 (safety test)		
	Protection class II		
	CE		
Conformity	UNI EN 538 UNI EN 539-2	UNI EN 539-1 UNI EN 1304	UNI EN 1024

# Available colours



The data is not binding and the company reserves the right to make modifications without prior notice.

