

## BUILDING INTEGRATED THIN FILM PHOTOVOLTAIC MODULES

Based on technology of thin film amorphous silicon, **VitroSun®** combines the aesthetic of a glass with the functionality of a photovoltaic panel.

Made with the most innovative lamination process, **VitroSun®** is able to generate electrical energy and at the same time, blocks solar rays, transforming solar light into a smooth diffused light, transmitting only the necessary light and eliminating the use of artificial light.

**VitroSun®** is suitable in always due to its integration in all types of buildings. It allows you to generate electrical energy in an environmentally friendly way thanks to its photovoltaic amorphous silicon cells, and drastically reduces the UV radiation apart from increasing the inner temperature caused by solar radiation.

### GENERAL CHARACTERISTICS

- Thin film solar cells based on amorphous silicon technology
- Double glass encapsulation according to the most innovative lamination process
- Low iron solar glass with high light transmission index
- Laminated with high quality anti-aging EVA
- High water resistant and hail impact
- Available in different transparencies to adjust to all necessities
- Simple installation like a laminated glass in facade and cover
- Optionally available with air chamber system
- Reduces the power consumption of the building
- Power guaranteed for 20 years



## TECHNICAL DATA SHEET

### Characteristics

Model		VS44TFS	VS50TFS	VS55TFS
Cell technology		Thin Film	Thin Film	Thin Film
Number of cells		108 in series	108 in series	108 in series
Cell size	mm	8,78x922	8,78x922	8,78x922
Specific power	W/m <sup>2</sup>	47,30	53,70	59,10
Max. power at STC (P <sub>max</sub> )	Wp	44	50	55
Voltage at P <sub>max</sub> (V <sub>mp</sub> )	V	59,6	64,4	68
Open-circuit voltage (V <sub>oc</sub> )	V	91,8	91,8	91,8
Current at P <sub>max</sub> (I <sub>mp</sub> )	A	0,74	0,78	0,81
Short-circuit current (I <sub>sc</sub> )	A	0,97	1,09	1,14

### Specifications

Transparency	%	10	5	1
Dimensions of module	mm	980x950	980x950	980x950
Thickness	mm	10,5/13,5	10,5/13,5	10,5/13,5
Weight	Kg	23/30	23/30	23/30
Output terminal			Junction box	
Cable			LAPP (4,0mm <sup>2</sup> )	
Connections			Equivalent to MC	

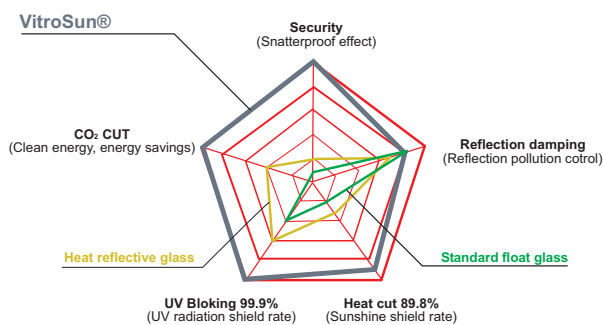
### Limits

Operating temperature			-40°C a 85°C	
Relative humidity			0 a 100%	
Wind resistance			> 130k/h	

STC: Irradiance 1000W/m<sup>2</sup>, Module temperature 25°C, AM = 1,5.

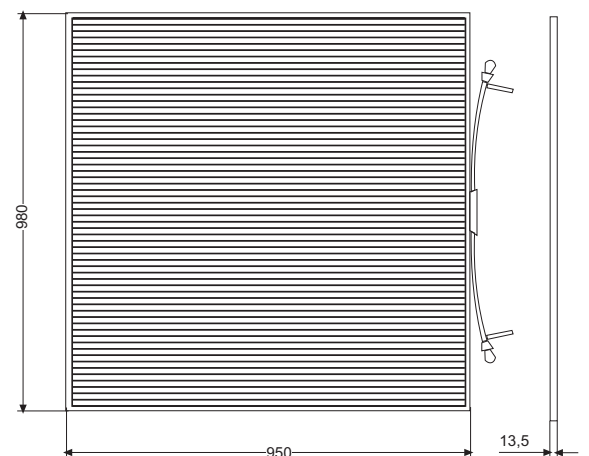
## PRODUCT FEATURES

Comparison of VitroSun® to standard and high performance glass.



**VitroSun®** has superior functional advantages over others glass products. It is a multifunctional glass with both energy generation and energy saving functions.

## VS44TFS - VS50TFS - VS55TFS



(Standard dimensions in millimeters)