

## Photovoltaic modules

**TE 1300, TE 1700**

**115 à 180 Watts Peak - 12/24 Volts**  
**Multicrystalline, Glass/Tedlar**



**Tenesol manufactures its own photovoltaic modules.**

Tenesol's modules use the **high-output technology of the multicrystalline cell**. Each cell is individually measured and sorted before the encapsulation stage.

The combination of **Tempered Glass / EVA / Tedlar** ensures weight minimisation, guarantees a perfect watertightness as well as durable protection of the cells.

**The aluminium frame** allows an effortless handling and an easy and fast assembly.

Each module is submitted to an **individual quality control** and is referenced by an assessment sheet of its performance tests.

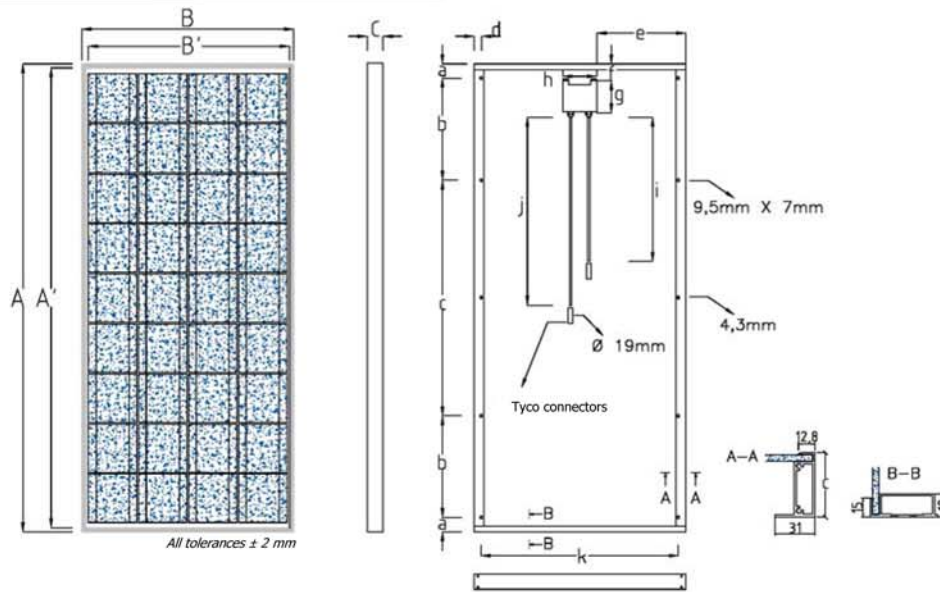
**The Tenesol modules' quality is certified : CE**  
**Manufactured in ISO 9001:2000 certified facilities**

### **APPLICATIONS :**

- Telecommunication
- Professional Applications
- Pumping
- Beacons
- Rural Electrification
- Grid connected systems



### Dimensions



### TE1300 TE1700

	TE1300	TE1700
A	1510	1240
A'	1480	1212
B	676	1086
B'	650	1062
C	50	38
a	48	25
b	327,5	215,5
c	759	759
d	23	19
e	284,5	489,5
f	51,5	50
g	99	99
h	107	107
i	840	840
j	1030	1030
k	630	1048

### Characteristics

Electrical characteristics	TE1300						TE1700				
Nominal voltage	12 V						24 V				
Typical power	115	120	125	130	135	140	140	150	160	170	180
Minimum power	112,5	117,5	122,5	127,5	132,5	137,5	135	145	155	165	175
Maximum power	117,5	122,5	127,5	132,5	137,5	142,5	145	155	165	175	185
Sorting limits Wp	$\pm 2,5$ Wp						$\pm 5$ Wp				
Sorting limits %	$\pm 2,17\%$	$\pm 2,08\%$	$\pm 2,00\%$	$\pm 1,92\%$	$\pm 1,85\%$	$\pm 1,79\%$	$\pm 3,57\%$	$\pm 3,33\%$	$\pm 3,13\%$	$\pm 2,94\%$	$\pm 2,78\%$
Voltage at max. power Vpm (V)	17,5	17,6	17,7	17,8	17,9	18	33,2	33,9	34,7	35,5	36,2
Current at max. power Ipm (A)	6,7	6,9	7,2	7,4	7,6	7,8	4,2	4,4	4,6	4,8	5
Open circuit voltage Voc (V)	21,7	21,8	21,9	22	22,1	22,2	42	42,6	43,2	43,8	44,4
Short circuit current Isc (A)	7,7	7,8	7,9	8	8,1	8,2	4,5	4,7	5	5,2	5,4
Temperature coefficients											
Coefficient Temperature of Voltage	- 77,4 mV/°C						- 152,64 mV/°C				
Coefficient Temperature of Current	+ 4,4 mA/°C						+ 1,53 mA/°C				
Coefficient Temperature of Power	- 0,46 %/°C						- 0,43 %/°C				
NOCT (°C)	45						45				
Cells											
Layout	156 x 156 mm						125 x 125 mm				
Layout	36 cells / 4 x 9						72 cells / 8 x 9				
Type	Multicrystalline						Multicrystalline				
General informations											
Maximum system voltage (V)	715 V						715 V				
Diodes	2 by-pass						4 by-pass				
Type of connection	Tyco (Grid 3/box)						Tyco (Grid 3/box)				
Weight (kg)	12						16				
Certifications							IEC61215 + TUV class II				
Warranty											
Product warranty							2 years				
Warranty on power output							25 years - 80 % of minimal power / 10 years in marine environment				

(According to specifications @ STC: Irradiation 1000 W/m<sup>2</sup>; AM 1.5; Cell at ambient Temperature T: 25°C)

