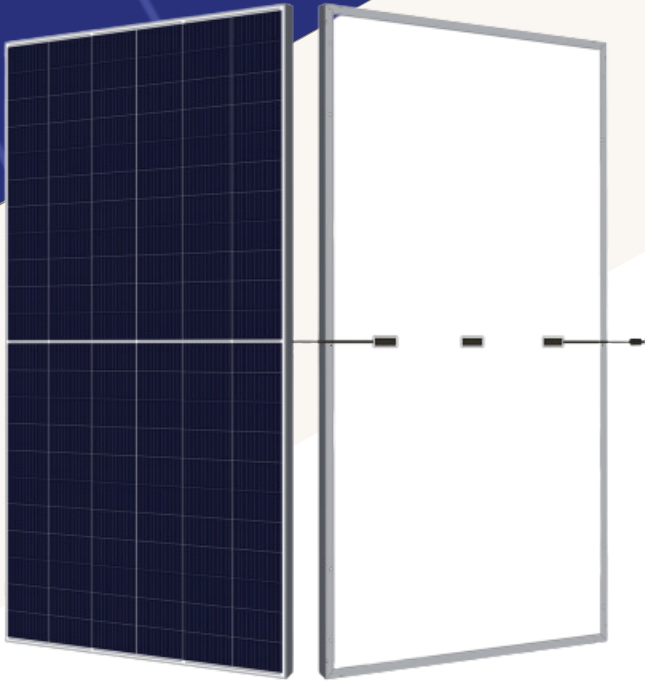


# PERC MAX

HIGH PERFORMANCE  
MONOCRYSTALLINE  
P.E.R.C MODULE



132

## TM - 490/510M-132HC









**132 CELL**  
Mono PERC Module

**490 - 510Wp**  
Power Output Range

**1500VDC**  
Maximum System Voltage

**21.48%**  
Maximum Efficiency

### KEY SALIENT FEATURES

-  Industry leading lowest thermal co-efficient of power
-  Industry leading 15 years product warranty
-  Excellent low irradiance performance
-  Excellent PID resistance
-  Positive power tolerance of 0~+3%
-  Fully automated production at all stages
-  Fully Reduced power loss by minimizing the effect of shadow shading ( 9 - 18 Busbar)
-  European Warranty & After - Sales Service



### TAMESOL BUILDING A GREEN FUTURE S.L

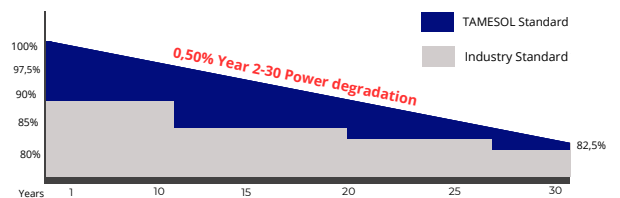
TAMESOL is a global provider of high-efficiency PV panels with a 10GW annual production capacity and a 100% automated production line, innovating state-of-the-art products for over 15 years. Our panels have been installed in more than 50 countries, with over 20 million panels already connected to the grid.

Tel : +34 872 222 388

E - mail: [info@tamesol.com](mailto:info@tamesol.com) Website: [www.tamesol.com](http://www.tamesol.com)

### LINEAR PERFORMANCE WARRANTY

15 year Product Warranty / 30-Year Linear Power Warranty



**TAMESOL** 15  
YEARS

*Since 2007, building a green future*

**21,48%**

MAX MODULE  
EFFICIENCY

**0 - 3%**

POWER  
TOLERANCE

**2,0%**

FIRST YEAR POWER  
DEGRADATION

**0,50%**

YEAR 2-30  
POWER DEGRADATION

**PERC CELL**

Lower operating temperature

## ELECTRICAL CHARACTERISTICS

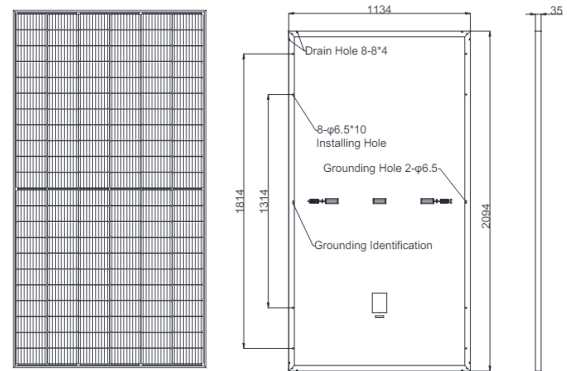
STC: AM1.5 1.000W/m<sup>2</sup> NOTC: AM1.5 800W/m<sup>2</sup> 20° 1 m/s Test uncertainty for Pmax +3%

Module type	TM - 490M-132HC		TM - 595M-132HC		TM - 500M-132HC		TM - 505M-132HC		TM - 510M-132HC	
	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC
Testing condition	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC
Maximum Power (Pmax/w)	490	370	495	374	500	378	505	382	510	386
Open Circuit Voltage (Voc/V)	45,30	42.43	45.50	42.58	45,70	42.72	45.90	42.86	46.10	43.00
Short Circuit Current (Isc/A)	13,54	11.13	13.63	11.20	13,72	11.27	13,78	11.34	13,84	11.41
Voltage at Maximum Power (Vmp/V)	38,40	35.76	38.60	35.84	38.80	35.93	39.00	36.02	39.20	36.11
Current at maximum Power (Imp/A)	12,77	10.36	12.83	10,44	12.89	10.52	12.95	10.60	13,01	10.68
Module Efficiency (%)	20,64%		20,85%		21,06%		21,27%		21,48%	

## MECHANICAL PARAMETERS

Cell Orientation	single crystal PERC 182x91mm (132 pieces)
Junction Box	IP68, three diodes
Output Cable	4.0mm <sup>2</sup> 300mm (can be customized)
Glass	3.2mm tempered coated glass, low iron
Frame	Anodized aluminum alloy frame
Weight	24kg
Dimensión	2094*1134*30/35mm
Packaging	31/36 pcs*pallet / 682/792 pcs*40HQ

## PHYSICAL CHARACTERISTICS



## OPERATING PARAMETERS

Operational Temperature	-40°C - +85°C
Power Output Tolerance	(0, +3%)
Voc and Isc Tolerance	±3%
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	25 A
Nominal Operating Cell Temperature	45±2°C
Protection Glass	Class II
Fire Rating	Class C

## MECHANICAL LOADING

Front Side Maximum Static Loading	5400 PA
Rear Side Maximum Static Loading	2400 PA
Hailstone Test	Diameter 25mm, impact speed 23m/s

## TEMPERATURA RATINGS (STC)

Temperature Coefficient of Isc	+0.05%/°C
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Pmax	-0.35%/°C

## PACKING MANNER

Container	40ft(HQ)
Number of modules per container	682/ 792
Number of modules per pallet	31 / 36
Number of pallets per container	22

TAMESOL Authorized Solar Dealer

**Note:** The specifications are obtained under the Standard Test Conditions (STCs): 1000 W/m<sup>2</sup> solar irradiance, 1.5 Air Mass, and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800 W/m<sup>2</sup>, 20°C ambient temperature, 1m/s wind speed, AM 1.5 spectrum.

Please contact [info@tamesol.com](mailto:info@tamesol.com) for technical support. The actual transactions will be subject to the contracts. This parameter is for reference only and it is not a part of the contracts. The specifications are subject to change without prior notice.