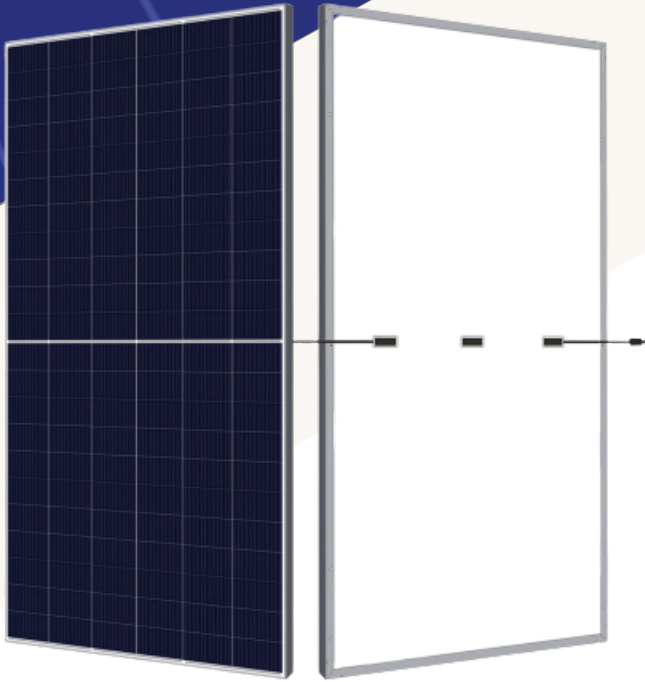


PERC**MAX**

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.

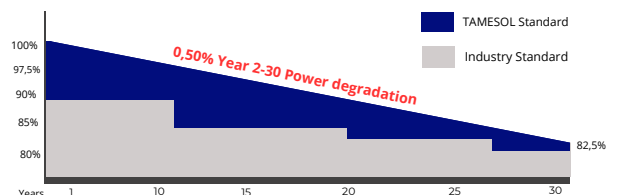
Tel : +34 872 222 388

E - mail: info@tamesol.com Website: www.tamesol.com

TAMESOL
Energia para vivir

LINEAR PERFORMANCE WARRANTY

15 year Product Warranty / 30-Year Linear Power Warranty



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

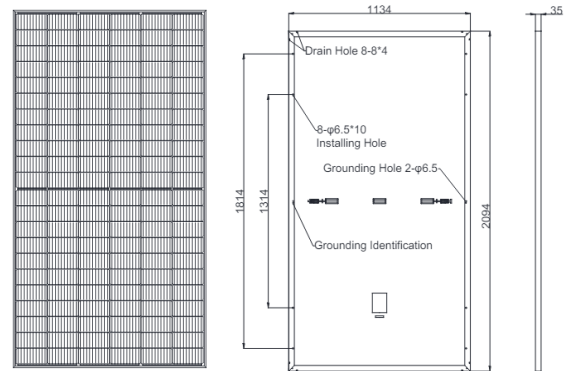
STC: AM1.5 1.000W/m² NOTC: AM1.5 800W/m² 20° 1 m/s Test uncertainty for Pmax 0 - +3%

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 ² 300mm (can be customized)
Glass	3.2mm tempered coated glass, low iron
Frame	Anodized aluminum alloy frame
Weight	24 - 26kg
Dimensión	2094*1134*30/35mm
Packaging	31/33 pcs*pallet / 682/726 pcs*40HQ

PHYSICAL CHARACTERISTICS



OPERATING PARAMETERS

Operational Temperature	-40°C - +85°C
Power Output Tolerance	(0, +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

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/ 726
Number of modules per pallet	31 / 33
Number of pallets per container	22

TAMESOL Authorized Solar Dealer

Note: The specifications are obtained under the Standard Test Conditions (STCs): 1000 W/m² solar irradiance, 1.5 Air Mass, and cell temperature of 25°C. The NOCT is obtained under the Test Conditions: 800 W/m², 20°C ambient temperature, 1m/s wind speed, AM 1.5 spectrum.

Please contact 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.