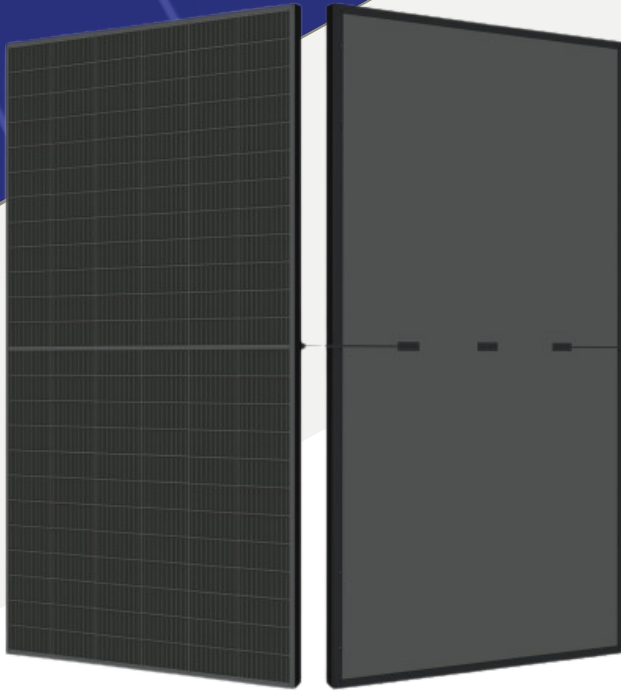


PERC**MAX**

# DARKSUN

HIGH PERFORMANCE  
MONOCRYSTALLINE  
P.E.R.C MODULE

108



## TM - 390/410M-108AB









**108 CELL**  
Mono PERC Module

**390 - 410Wp**  
Power Output Range

**1500VDC**  
Maximum System Voltage

**21,00%**  
Maximum Efficiency

### KEY SALIENT FEATURES

-  Industry leading lowest thermal co-efficient of power
-  Industry leading 25 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



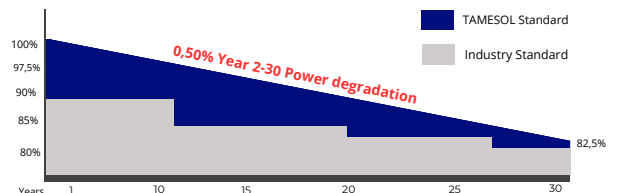
### TAMESOL BUILDING A GREEN FUTURE S.L

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

25 year Product Warranty / 30-Year Linear Power Warranty



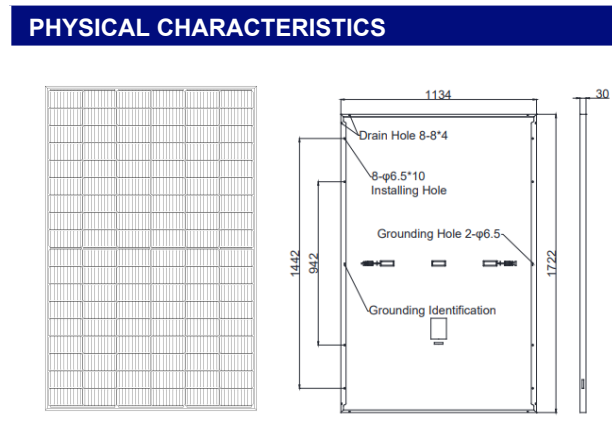
**TAMESOL**  
— be bright, go solar —

*Since 2007, building a green future*

<b>21,00%</b> MAX MODULE EFFICIENCY	<b>0 - 3%</b> POWER TOLERANCE	<b>2,0%</b> FIRST YEAR POWER DEGRADATION	<b>0,50%</b> YEAR 2-30 POWER DEGRADATION	<b>PERC CELL</b> Lower operating temperature
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ELECTRICAL CHARACTERISTICS		STC: AM1.5 1.000W/m2 NOTC: AM1.5 800W/m2 20° 1 m/s Test uncertainty for Pmax +-3%									
Module type	TM - 390 M-108AB		TM - 395 M-108AB		TM - 400 M-108AB		TM - 405M-108AB		TM - 410M-148AB		
Testing condition	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	
Maximum Power (Pmax/w)	390	290	395	294	400	298	405	301	410	305	
Open Circuit Voltage (Voc/V)	36,7	34,7	36,9	34,9	37,1	35,1	37,3	35,3	37,5	35,5	
Short Circuit Current (Isc/A)	13,59	10,61	13,66	10,69	13,73	10,78	13,81	10,82	13,88	10,92	
Voltage at Maximum Power (Vmp/V)	30,53	28,87	30,70	29,04	30,87	29,2	31,03	29,37	31,20	29,54	
Current at maximum Power (Imp/A)	12,78	10,05	12,87	10,13	12,96	10,21	13,06	10,25	13,15	10,32	
Module Efficiency (%)	19,97%	14,85%	20,23%	15,06%	20,48%	15,28%	20,74%	15,42%	21,00%	15,43%	

MECHANICAL PARAMETERS	
Cell Orientation	single crystal PERC182x91mm (108 pieces)
Junction Box	IP68, three diodes
Output Cable	4.0mm² 300mm(+) / 300mm(-) or customized
Glass	3.2mm high transparency, tempered glass
Frame	Anodized aluminum alloy frame
Weight	20.5 kg
Dimensión	1722*1134*30mm
Packaging	36 pcs*pallet / 366pcs*20GP / 936pcs*40HC



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	936
Number of modules per pallet	36
Number of pallets per container	26

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](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.