

TOPSUN

# ALL BLACK

HIGH PERFORMANCE  
MONOCRYSTALLINE  
N-TYPE TECHNOLOGY

144

## TOP - 565/585M-144AB

**144 CELL**  
Mono N - Type Module

**565 - 585Wp**  
Power Output Range

**S/Double Glass**  
Black Backsheet

**22.65%**  
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)



EU Brand & European 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.

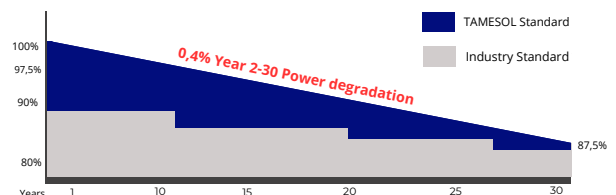
Tel : +34 933 801 596

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

**TAMESOL**  
Energia para vivir

### LINEAR PERFORMANCE WARRANTY

15 year Product Warranty / 30-Year Linear Power Warranty

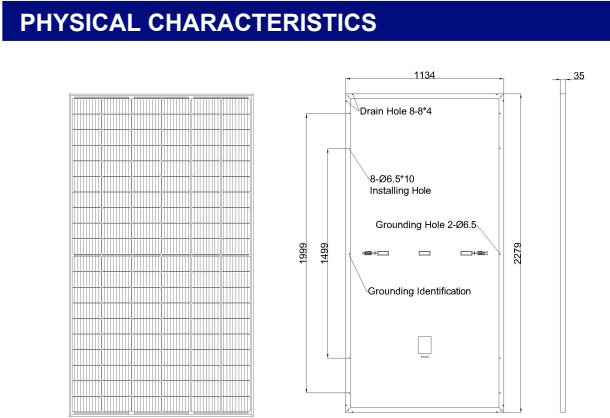


*Since 2007,  
building a green future*

<b>22,65%</b> MAX MODULE EFFICIENCY	<b>0 - +3%</b> POWER TOLERANCE	<b>1,0%</b> FIRST YEAR POWER DEGRADATION	<b>0,40%</b> YEAR 2-30 POWER DEGRADATION	<b>N-TYPE CELL</b> Lower operating temperature
--	-----------------------------------	---	---	---

Module type	TOP - 565M-144AB		TOP - 570M-144AB		TOP - 575M-144AB		TOP - 580M-144AB		TOP - 585M-144AB	
	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)	565	425	570	429	575	433	580	437	585	441
Open Circuit Voltage (Voc/V)	50,60	48,07	50,74	48,20	50,88	48,33	51,02	48,46	51,16	48,59
Short Circuit Current (Isc/A)	14,23	11,46	14,31	11,55	14,39	11,62	14,47	11,68	14,55	11,77
Voltage at Maximum Power (Vmp/V)	41,92	39,38	42,07	39,51	42,22	39,64	42,37	39,77	42,52	39,90
Current at maximum Power (Imp/A)	13,48	10,79	13,55	10,85	13,62	10,91	13,69	10,97	13,76	11,06
Module Efficiency (%)	21.86%		22,06%		22,26%		22,45%		22,65%	

MECHANICAL PARAMETERS	
Cell Orientation	single crystal N-Topcon 182x91mm (144 pieces)
Junction Box	IP68, three diodes
Output Cable	4.0mm <sup>2</sup> 300mm(+) / 300mm(-) or customized
Glass	2.0mm / 2.0mm
Frame	Anodized aluminum alloy frame
Weight	32kg
Dimensión	2278*1134*30mm
Packaging	36pcs*pallet / 720 pcs*40HQ



OPERATING PARAMETERS	
Operational Temperature	-40°C - +85°C
Power Output Tolerance	(0, +3%)
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	30 A
Nominal Operating Cell Temperature	45±2°C
Protection Glass	Class II
Fire Rating	Class C
Bifacial - Factor	80% ± 10%

MECHANICAL LOADING	
Front Side Maximum Static Loading	5400 PA
Rear Side Maximum Static Loading	2400 PA

TEMPERATURA RATINGS (STC)	
Temperature Coefficient of Isc	+0.046%/°C
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Pmax	-0.30%/°C

PACKING MANNER	
Container	40ft(HQ)
Number of modules per container	720
Number of modules per pallet	36
Number of pallets per container	20

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.