PERCMAX

BISOL

HIGH PERFOMANCE BIFACIAL MONOCRYSTALLINE P.E.R.C MODULE

144

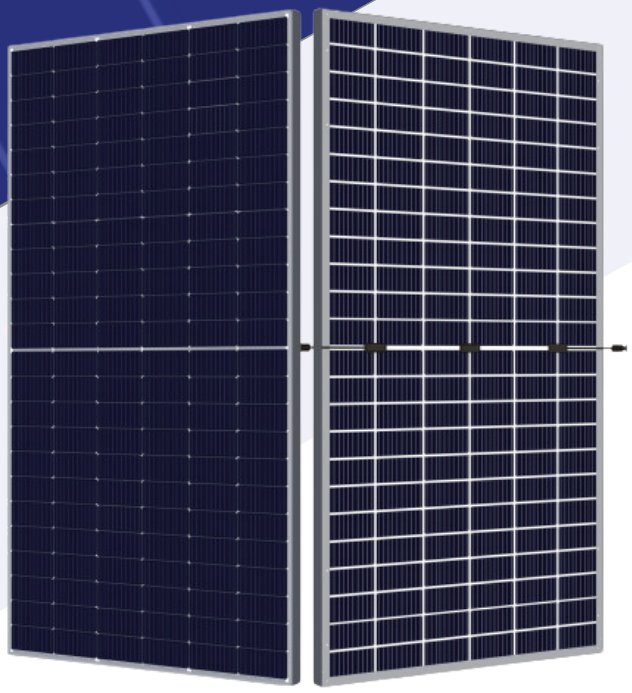
TM - 430/450M-144BI

144 CELL
Mono PERC Module

430 - 450Wp
Power Output Range

1500VDC
Maximum System Voltage

20.7%
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

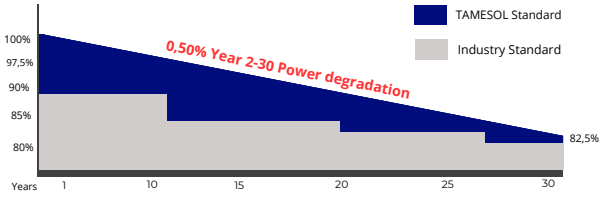
TAMESOL BUILDING A GREEN FUTURE S.L

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** Website: **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

PERCMAX
BISOL

TM-430/450M-144BI

20,7%	0 - 3%	2,0%	0,50%	PERC CELL
MAX MODULE EFFICIENCY	POWER TOLERANCE	FIRST YEAR POWER DEGRADATION	YEAR 2-30 POWER DEGRADATION	Lower operating temperature

ELECTRICAL CHARACTERISTICS

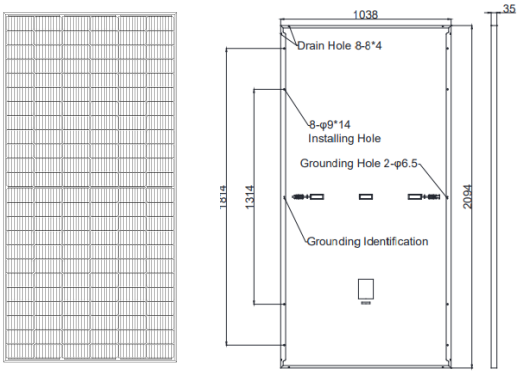
STC: AM1.5 1.000W/m2 NOTC: AM1.5 800W/m2 20º 1 m/s Test uncertainty for Pmax +-3%

Module type	TM - 430M-144BI		TM - 435M-144BI		TM - 440M-144BI		TM - 445M-144BI		TM - 450M-144BI	
Testing condition	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC	STC	NOTC
Maximum Power (Pmax/w)	430	320	435	324	440	327	445	331	450	335
Open Circuit Voltage (Voc/V)	49,3	46,6	49,5	46,8	49,7	47,0	49,9	47,2	50,1	47,4
Short Circuit Current (Isc/A)	11,32	8,90	11,4	8,96	11,47	9,00	11,54	9,09	11,61	9,15
Voltage at Maximum Power (Vmp/V)	41,2	38,8	41,3	39,0	41,4	39,2	41,6	39,3	41,8	39,5
Current at maximum Power (Imp/A)	10,44	8,25	10,54	8,31	10,63	8,35	10,7	8,43	10,77	8,49
Module Efficiency (%)	19,78%	14,72%	20,01%	14,91%	20,24%	15,04%	20,47%	15,23%	20,70%	15,41%

MECHANICAL PARAMETERS

Cell Orientation	single crystal PERC166x83mm (144 pieces)
Junction Box	IP68, three diodes
Output Cable	4.0mm² 300mm(+) / 300mm(-) or customized
Glass	3.2mm tempered coated glass, low iron
Frame	Anodized aluminum alloy frame
Weight	23 kg
Dimensión	2094*1038*35mm
Packaging	31+2* pcs*pallet / 255pcs*20GP / 726pcs*40HC

PHYSICAL CHARACTERISTICS



OPERATING PARAMETERS

Operational Temperature	-40ºC - +85ºC
Power Output Tolerance	(0, +3%)
Voc and Isc Tolerance	±3%
Maximum System Voltage	1500V DC
Maximum Series Fuse Rating	20 A
Nominal Operating Cell Temperature	45±2℃
Protection Glass	Class Ⅱ
Fire Rating	Class C
Bifacial- Factor	70%±10%

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%/℃
Temperature Coefficient of Voc	-0.27%/℃
Temperature Coefficient of Pmax	-0.35%/℃

PACKING MANNER

Container	40ft(HQ)
Number of modules per container	726
Number of modules per pallet	31+2*
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.