

TOPSUN

MONOCRISTALLYNE BIFACIAL PV MODULES

N-TYPE TECHNOLOGY

TOP- 630 | 650M-132BI

630 – 650 WP

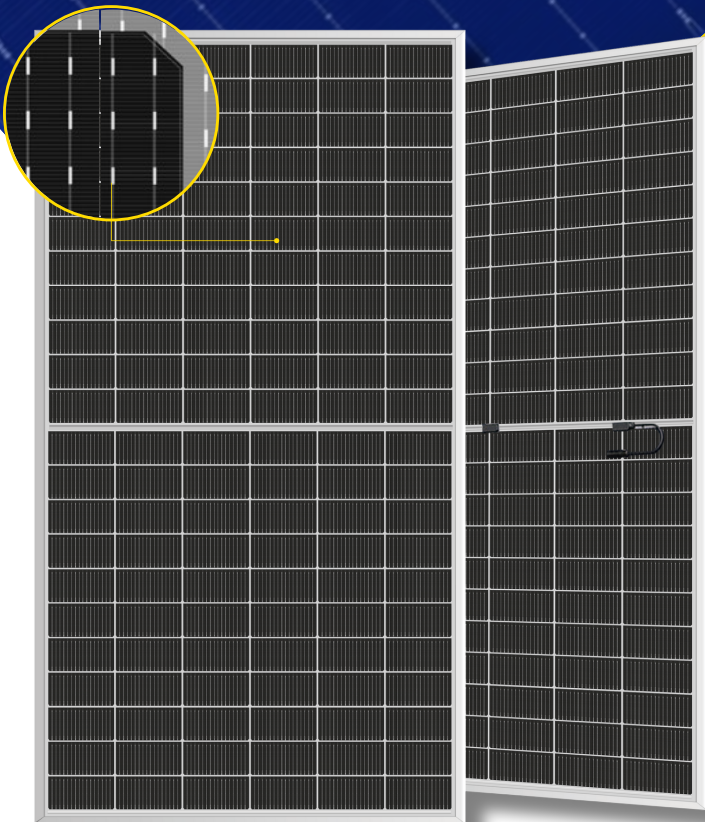
132 CELLS * 210MM

MAX. EFFICIENCY 24%

DOUBLE GLASS

KEY FEATURES

- Industry lower thermal coefficient pwr
- 15+10 Years Product EU Warranty
- Excellent irradiance performance
- Excellent PID resistance
- Positive tolerance from 0 to +3%
- Fully automated production all stages
- Reduced power losses **16 BUSBAR**
- European Quality Standards, warranty and after sales service



61215



61730



OHSAS18001



CE



ISO14001



ISO 9001



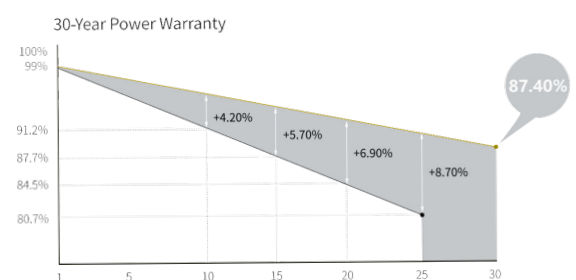
RECYCLE

TAMESOL building a green future SL, is a European manufacturer of high-efficiency PV panels with a 10GW annual production capacity and 100% automated production line located in China, **innovating state-of-the-art products for over 18 years.**

Our panels have been installed in more than 50 countries, with over 20 million panels already connected to the grid.

PERFORMANCE WARRANTY

1% first year – 0,40% year 2 to 30



*15 (+10)-year Product & 30-year Linear Power

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TAMESOL
Since 2017 building a green future

24,00%

MAX. MODULE
EFFICIENCY

+3%

POWER
TOLERANCE

1%

1ST YEAR POWER
DEGRADATION

0,40%

YEAR 2 TO
YEAR 30

N-TYPE CELL

LOWER OPERATING
TEMPERATURE

PACKING MANNER

Packaging(pcs/40HQ container)		13.5 meter semi hanging		Dimensions	Weight
31/620pcs	37/740pcs	31/682pcs	37/814pcs	2382x1134x35(30)mm	33.6kg±3%

MECHANICAL SPECIFICATION

Cell	N-type mono-crystalline	Maximum System Voltage	1500VDC
No.of cells	132(6x22)	Operating Temperature	-40°C~+85°C
Cable Length	300mm(+)/300mm(-)	Maximum Series Fuse	25A
Cable Cross Section Size	4mm ² (IEC)	Maximum StaticLoad,Front	5400Pa(112lb/ft ²)
Junction Box	IP68,3 diodes	Maximum StaticLoad,Back	2400Pa(50lb/ft ²)
Connector	MC4 Compatible	Safety Class	Class II
STC:AM1.5 1000W/m ² 25°C NOCT:AM1.5 800W/m ² 20°C 1m/s		Test Uncertainty for Pmax ±3%	

OPERATING PARÁMETERS

ELECTRICAL CHARACTERISTICS

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

Module Type	TOP-630M-132BI		TOP-635M-132BI		TOP-640M-132BI		TOP-645M-132BI		TOP-650M-132BI	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power(Pmax/W)	630	478	635	481	640	485	645	489	650	493
Open Circuit Voltage(Voc/V)	48.74	46.30	48.92	46.47	49.10	46.65	49.28	46.82	49.46	46.99
Short Circuit Current(Isc/A)	16.24	13.11	16.30	13.16	16.36	13.21	16.42	13.25	16.48	13.30
Voltage at Maximum Power(Vmp/V)	40.88	39.05	41.06	39.21	41.24	39.38	41.42	39.54	41.60	39.70
Current at Maximum Power(Imp/A)	15.44	12.23	15.50	12.27	15.56	12.32	15.62	12.36	15.68	12.41
Module Efficiency(%)	23.30		23.50		23.70		23.90		24.00	

TEMPERATURE RATINGS (STC)

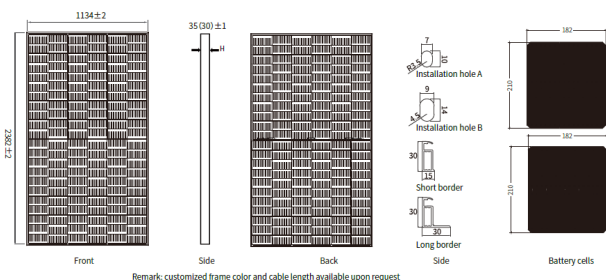
Norminal Operating Cell Temperature(NOCT)	45±2°C
Temperature Coefficient of Isc	+0.045%/°C
Temperature Coefficient of Voc	-0.275%/°C
Temperature Coefficient of Pmax	-0.300%/°C

POWER OUTPUT FONT & REAR SIDE

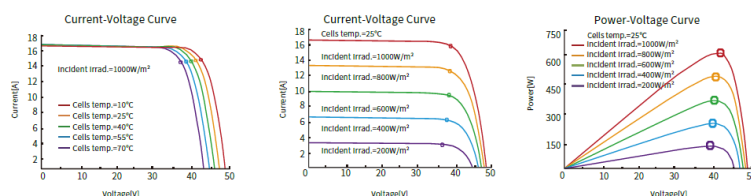
(REFERENCEDSPECIFICALLY TO 630WP FRONT)

Power Gain (%)	5%	10%	15%	20%	25%
Maximum Power(Pmax/W)	661	693	724	756	787
Pmax Gain(%)	24.50%	25.60%	26.80%	28.00%	29.10%

SIZES OF MODULE



I-V CURVE (TOP-630 | 650M-132BI)



OFFICIAL 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.