



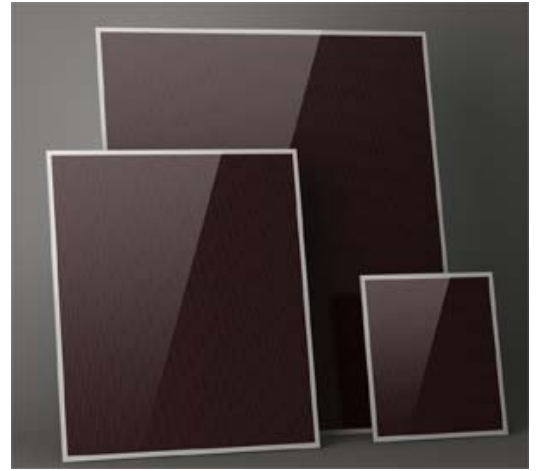
BILLION POWER

Your one stop Supplier for all kinds of
Solar Modules and BOS.



BP-M-T series Thin Film Solar Module

BP-M-T series micro morph tandem products represent the latest advancements in Micro morph silicon thin film photovoltaic modules technology. BP-M –T Film achieves a prominent performance, high quality and stable manufacturing process for the large modules using advanced PECVD, LPCVD ,laser scribing and assembly technology. BP-M-T Films aims to provide the world with low-cost and high-tech renewable, sustainable, and clean alternative energy through continuous innovation.

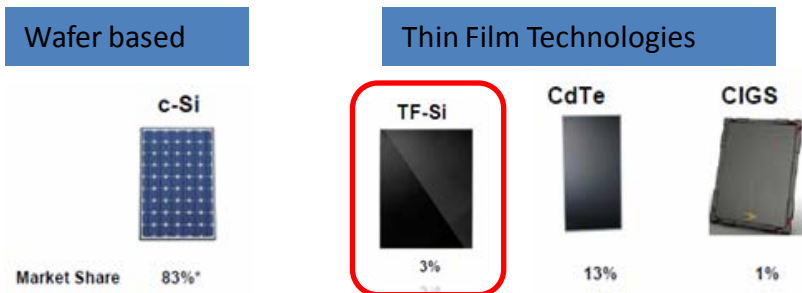


- Advantages:**
- Prominent performance at high temperature and weak sunlight
 - Cost effective and low energy payback time
 - Quick , easy and flexible options to install
 - Fewer shading losses than crystalline modules
 - Be able to adopt the transformerless inverter to increase the system efficiency and reduce the BOS cost by using the FMP method to install

Solar power :

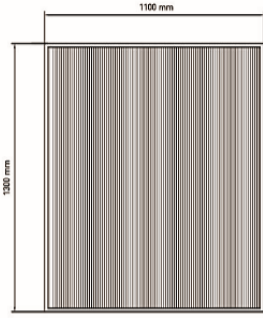
Photovoltaic (PV)

...direct conversion of sunlight into electricity through photoelectric effect. PV supports broad functional application from roof-tops to large farms at competitive energy value

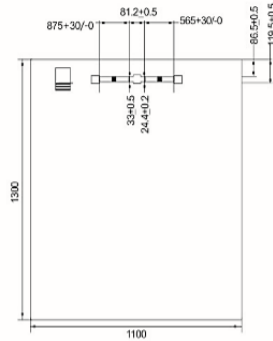




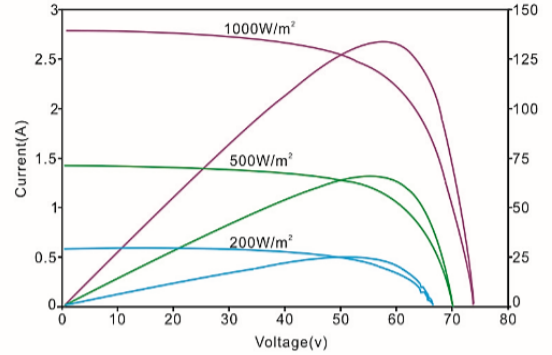
Front view



Back view



I-V Curves



Typical Stabilized Electrical Characteristic at Standard Test Condition

Model Type	BP-M-T120	BP-M-T125	BP-M-T130
Maximum output power(Pmpp)	120W	125W	130W
Tolerance of Rating	+5W	+5W	+5W
Maximum output power voltage(Vmpp)	56V	56.5V	57V
Maximum output power current(Imp)	2.14A	2.21A	2.28A
•Open circuit voltage(Voc)	73.1V	73.6V	74V
Short circuit current(Isc)	2.53A	2.61A	2.66A

Temperature Characteristics

Temperature characteristics of Pmpp	-0.29%/° C
Temperature characteristics of Vmpp	-0.36%/° C
Temperature characteristics of Imp	+0.07%/° C
Temperature characteristics of Voc	-0.33%/° C
Temperature characteristics of Isc	+0.07%/° C
Nominal Operating Cell Temperature(NOCT)	40° C
Operating Temperature	-40~85° C



Properties for System Design

Maximum System voltage	1000V(TUV) 600(UL)
Over-current protection rating(A)	8A
Bypass Diode Current	8A

Mechanical Specifications

Dimensions(L*W)	1300X1100mm (Tolerance:±2mm)
Thickness	6.8±0.4mm
Weight(only module)	24KG (Typical)
Module structure	Glass/EVA/Glass
Cell type	a-Si/μc-Si
Junction box	IP65/IP67
Cable diameter	2.5mm ²
Connector type	MC4 compatible
Mechanical load	2400Pa
Application classification	A

Packaging and logistics information

Packing Num/Box	30pcs
General weight/Box	785kg
Packing Num/40'HC	960pcs
General weight/40'HC	25,120kg

Quality Assurance

Product standards	IEC 61646,IEC61730,UL 1703
Product workmanship	5 years
90% of minimum stabilized rated output power(STC)	10 years
80% of minimum stabilized rated output power(STC)	25 years



Application:

➤ PV System

Thin film can face all sides with better performance, Grid connected, Centralized project with lowest cost and high return

Ground mounted PV system



Commercial Rooftop PV system



Residential Rooftop PV system



➤ BIPV

Integrated on greenhouse, Take better use of lands, Fully integrated on roof or façade, Semi-transparent or transparent façade

BIPV agriculture greenhouse



BIPV



BIPV





➤ PV Plant



Capacity: 3.7MW
Type: Ground Mounted
Location: Schonewalde,
Germany



Capacity: 285KW
Type: Rooftop
Location: California America



Capacity: 1MW
Type: Ground Mounted
Location: Bolangir India



Capacity: 1MW
Type: Ground Mounted
Location: Yunnan, China



Capacity: 92.16KW
Type: Rooftop
Location: Dusseldorf,
Germany



Capacity: 92.16KW
Type: Rooftop
Location: Dusseldorf,
Germany



Capacity: 485KW
Type: Rooftop
Location: Magdeburg
Germany



Capacity: 648KW
Type: Rooftop
Location: Oldenburg
Germany