

# BSDM

## SOLAR PV MODULE

### DESCRIPTION

Big Shine Energy is proud to be the trusted partner for your new Solar PV electric system. The heart of your system is our BSDM monocrystalline module (solar panel) which combines outstanding durability and performance. Our BSDM series panels pump out a maximum rated power of 380 to 410 Watts Watts per panel and we guarantee a positive power tolerance of + 5 Watts for every panel. When you install Big Shine Solar panels you're building on 26 years of Solar PV experience – our development team built its first modules in 1994! The BSDM has been rigorously tested to assure years of reliable performance. The IEC standard for mechanical load is 245 kg/m2. Our panels are qualified to more than double the IEC requirement. Snow load tested to 5,400 Pa (113 lbs. per square foot), Wind load tested to 2,400 Pa, and hail impact tested to 23m/s (51.5 miles/hr), our panels are robust. Environmental resistance, verified by TÜV Rheinland, includes testing with high salt mist and ammonia exposure. Our industry-leading 10-year product warranty reflects our confidence in our product. PID, or potential induced degradation, reduces module output over time. The monocrystalline BSDM has enhanced PID resistance; we warrant that the modules will retain 90% power output at 10 years and 80% at 25 years. Big Shine BSDM panels are certified to IEC 61215, 61730 3rd Revision, and UL 1703.

### APPLICATIONS

Industrial, Commercial

### SPECIAL FEATURES



#### Enhanced External Load/Impact

5,400 Pa front side and 2,400 PA rear side for wind and snow.



#### PID Resistance

Enhanced Potential Included Degradation Resistance



#### Fire Safety

Spread of Flame Class A  
Class C / Type 1 (IEC/UL)



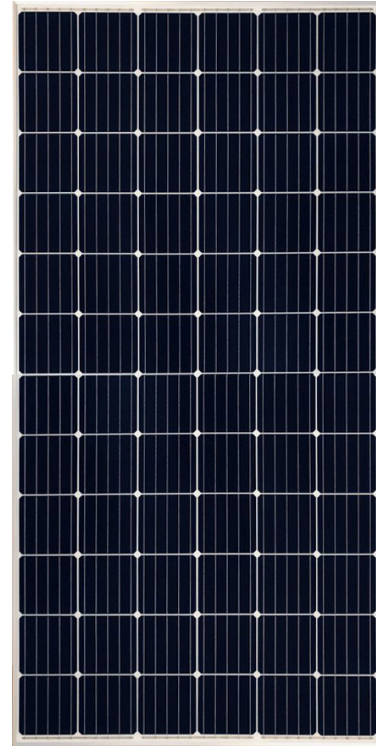
#### Higher Output Power

0~+5Wp  
Higher than rated power



#### Excellent Performance Under Low Light Conditions

Cloudy days, mornings and evenings



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### ELECTRICAL SPECIFICATIONS

STC (Irradiance 1,000W/m <sup>2</sup> , Module Temperature 25°C, AM=1.5)	BS-DM380	BS-DM385	BS-DM390	BS-DM395	BS-DM400	BS-DM405	BS-DM410
Rated Power (Pmax)	380W	385W	390W	395W	400W	405W	410W
Voltage at Pmax (Vmp)	40.02V	40.21V	40.37V	40.55V	40.77V	40.95V	41.12V
Current at Pmax (Imp)	9.5A	9.58A	9.66A	9.74A	9.81A	9.89A	9.97A
Warranted Minimum Pmax	380W	385W	390W	395W	400W	405W	410W
Short-Circuit Current (Isc)	10.01A	10.08A	10.48A	10.56A	10.64A	10.71A	10.79A
Open-Circuit Voltage (Voc)	47.8V	48V	48.18V	48.37V	48.55V	48.73V	48.91V
Module Efficiency	18.89%	19.14%	19.38%	19.63%	19.88%	20.13%	20.38%
Operating Module Temperature	-40° C to +85° C						
Maximum System Voltage	1,000V / 1500v (IEC / UL)						
Power Tolerance	0 ~ +5W						

### MECHANICAL SPECIFICATIONS

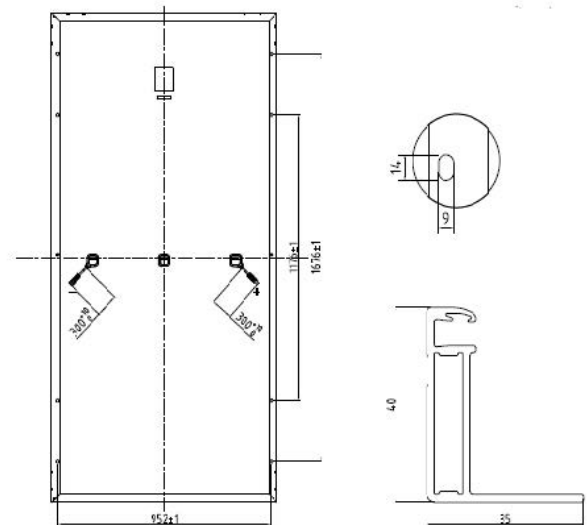
Solar Cells	158.75 x 158.75mm
Dimensions	2,008 x 1,002 x 40mm
Front Load	5,400Pa
Rear Load	2,400Pa
Weight	23kg
Glass	3.2mm High-Transmittance Low Iron Tempered Glass
Frame	Anodized Aluminum Frame (Silver)
J-Box	≥ IP67 with 3 bypass diodes
Output Cables	PV Wire (PV1-F), 12AWG (4mm <sup>2</sup> ), Cable Length:1,200mm
Connectors	MC4 Original, Compatible

### TEMPERATURE CHARACTERISTICS

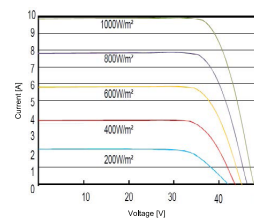
Temperature coefficient of Isc	0.046% / °C
Temperature coefficient of Voc	-0.306% / °C
Temperature coefficient of power	-0.417% / °C
NOCT (Tair 20°C; Irradiance 800W/m <sup>2</sup> ; Wind 1m/s)	45±2 °C

### PACKING CONFIGURATION

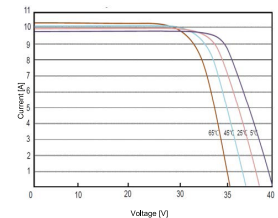
Container	40'
Modules Per Pallet	27 pcs
Pallets Per Container	22 pallets
Modules Per Container	594 pcs



Irradiance Coefficient



Temperature Coefficient



Big Shine Worldwide, inc. is a technology company supplying corporations worldwide with semiconductors and other electronic components. Our core business in semiconductor technology expanded to solar energy as sustainability matters prioritized. Big Shine now encompasses divisions in solar manufacturing, energy conservation, semiconductor supply.

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