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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**Baoding Billion Power Technology Co., Ltd.**

**BP-M-5-145P 17V**

**BP-M-105P**

Also available on the web at

[EnergyPal.com/baoding-billion-power-technology-co-ltd-solar-panels/bp-m-105p](http://EnergyPal.com/baoding-billion-power-technology-co-ltd-solar-panels/bp-m-105p)

## Billion Power

### Polycrystalline solar modules data sheet 5Wp–310Wp



Our solar modules are manufactured from high quality materials using the state-of-art techniques, and then undergo rigorous quality control in accordance with international standards ISO 9001:2008 and ISO14001.

Therefore, our modules are able to withstand all-weather conditions and outperform with extraordinary power conversion efficiency.

#### Performance

High efficiency, polycrystalline solar cells with high transmission and textured glass delivering a module efficiency of up to 15.0%, minimizing installation costs and maximizing the kWh output of your system per unit area.

#### Quality and Reliability

- ◆ Robust, corrosion resistant aluminum frame independently tested to withstand wind loads of 2.4 kPa and snow loads of 2.4 kPa ensuring a stable mechanical life for your modules.
- ◆ Module packaging optimized to protect product during transportation and minimize on-site waste.
- ◆ This type of module is commonly use for the small off-grid system.



## Technical Parameters

Modules Mode	Size: L*W*T (mm)	Power output (Wp)	Voltage at P max(V)	Current at P max (A)	Voc (V)	Isc (A)	Weight (kg)
<b>17V series Modules</b>							
BP-M-5P	205X350X25	5 Wp	17	0.3	21	0.33	1
BP-M-8P	230X350X25	8 Wp	17.5	0.45	21	0.5	1.2
BP-M-10P	300X320X25	10 Wp	17.5	0.57	21	0.66	1.64
BP-M-15P	420X320X25	15 Wp	17.5	0.86	21	1	2.3
BP-M-20P	535X320X25	20 Wp	17.3	1.16	21.3	1.32	2.58
BP-M-25P	510X450X25	25 Wp	17	1.67	21.4	1.91	3.24
BP-M-30P	510X535X25	30 Wp	17	1.76	21.5	2.58	3.46
BP-M-35P	510X535X25	35 Wp	17.5	2	21	2.3	4.5
BP-M-40P	660X490X25	40 Wp	17	2.35	21.5	2.59	4.38
BP-M-45P	660X490X25	45 Wp	17.2	2.62	21.6	2.85	4.38
BP-M-45P	660X540X25	45 Wp	17.2	2.62	21.6	2.85	5.23
BP-M-50P	660X550X25	50 Wp	17.4	2.87	21.5	3.24	5.23
BP-M-55P	660X630X25	55 Wp	17.5	3.14	22	3.42	6.19
BP-M-60P	660X630X25	60 Wp	17.3	3.47	21.3	3.96	6.19
BP-M-60P	660X660X25	60 Wp	17.3	3.47	21.3	3.96	6.19
BP-M-65P	710X660X25	65 Wp	17.5	3.71	22	4	7.33
BP-M-70P	770X660X25	70 Wp	17	4.12	21.6	4.57	7.33
BP-M-75P	770X660X25	75 Wp	17.5	4.29	22	4.66	7.33
BP-M-75P	860X660X25	75 Wp	17.5	4.29	22	4.66	7.88
BP-M-80P	860X660X25	80 Wp	17.5	4.6	22	5.1	7.88
BP-M-80P	900X660X25	80 Wp	17.5	4.6	22	5.1	7.88
BP-M-85P	900X660X25	85 Wp	17.5	4.9	22	5.3	7.88
BP-M-90P	1010X660X25	90 Wp	17.5	5.2	22	5.5	8.3
BP-M-95P	1010X660X25	95 Wp	17	5.59	21	6.37	8.3
BP-M-100P	1010X660X25	100 Wp	17	5.88	21	6.71	8.3
BP-M-105P	1060X660X25	105 Wp	17.5	5.92	22	6.7	8.7
BP-M-110P	1172X660X25	110 Wp	17.5	6.3	22	6.7	11.8
BP-M-115P	1172X660X25	115 Wp	17.5	6.6	22	6.7	11.8
BP-M-120P	1172X660X25	120 Wp	17.5	6.9	22	7.6	11.8
BP-M-120P	1270X660X25	120 Wp	17.5	6.9	22	7.6	11.8
BP-M-125P	1270X660X25	125 Wp	17.5	7.14	22	7.89	11.8
BP-M-130P	1400X670X25	130 Wp	17.6	7.38	22.1	8.05	11.5
BP-M-135P	1470X680X25	135 Wp	17.6	7.65	22.3	8.2	11.96
BP-M-135P	1400X670X25	135 Wp	17.6	7.65	22.3	8.35	11.5
BP-M-140P	1470X680X25	140 Wp	17.8	7.85	22.45	8.56	11.96
BP-M-145P	1470X680X25	145 Wp	17.8	8.15	22.7	8.56	11.96

Maximum system voltage: 50 VDC



Modules Mode	Size (mm)	Power output (Wp)	Voltage at Pmax(V)	Current at Pmax (A)	Voc (V)	Isc (A)	Weight (kg)
<b>35V series modules</b>							
BP-M-100P	990X750X25	100 Wp	34	3.05	40	4.53	13.8
BP-M-105P	990X750X25	105 Wp	34	3.1	40	4.57	13.8
BP-M-110P	990X825X25	110 Wp	34	3.25	40	4.6	13.8
BP-M-115P	990X825X25	115 Wp	34	3.52	40	4.63	13.8
BP-M-130P	1010X990X25	130 Wp	34.5	3.75	42	4.72	14
BP-M-135P	1010X990X25	135 Wp	34.6	3.85	42	4.77	14
BP-M-140P	1010X990X25	140 Wp	34.5	4.16	42	4.81	14
BP-M-145P	1010X990X25	145 Wp	34.5	4.21	42	4.87	14
BP-M-150P	1080X990X25	150 Wp	34.5	4.35	43	4.91	14.2
BP-M-155P	1080X990X25	155 Wp	34.5	4.49	43	5.04	14.2
BP-M-160P	1182X990X35	160 Wp	34.5	4.64	43	5.17	14.35
BP-M-165P	1182X990X35	165 Wp	35	4.71	44	5.14	14.35
BP-M-170P	1182X990X35	170 Wp	35	4.86	44	5.29	14.35
BP-M-175P	1182X990X35	175 Wp	35	5.68	44	5.74	14.35
BP-M-180P	1335X990X35	180 Wp	23.5	7.78	29.5	8.3	15.8
BP-M-185P	1310X990X35	185 Wp	23.5	7.87	30.35	8.53	15.8
BP-M-200P	1335X990X35	200 Wp	23.9	8.35	30.35	8.53	15.8
BP-M-200P	1495X990X35	200 Wp	26.5	7.6	29.5	8.45	15.9
BP-M-245P	1640X990X35	245 Wp	29.6	8.28	37.5	8.83	18.5
BP-M-250P	1640X990X35	250 Wp	29.8	8.39	37.6	8.92	18.5
BP-M-255P	1640X990X35	255 Wp	30.0	8.49	37.7	9.01	18.5
BP-M-260P	1640X990X35	260 Wp	30.3	8.59	37.7	9.09	18.5
BP-M-290P	1960X990X40	290 Wp	35.3	8.22	44.8	8.73	25.5
BP-M-295P	1960X990X40	295Wp	35.6	8.29	45.0	8.79	25.5
BP-M-300P	1960X990X40	300 Wp	35.8	8.37	45.2	8.86	25.5
BP-M-305P	1960X990X40	305 Wp	36.1	8.45	45.4	8.93	25.5
BP-M-310P	1960X990X40	310 Wp	36.3	8.53	45.6	8.99	25.5

Maximum system voltage: 1000VDC, Operating temperature: -40°C to +85°C

## Thermal Characteristics

Nominal operating cell temperature	NOCT	°C	46 +/- 2
Temperature coefficient of Pmax	γ	%/°C	-0.45
Temperature coefficient of Voc	βVoc	%/°C	-0.37
Temperature coefficient of Isc	αIsc	%/°C	0.06

## Operating Conditions

Max. series fuse rating	10A
Limiting reverse current	Don't apply external voltages larger than Voc of the module
Operating temperature range	-40 to 85°C
Max. static load, front (e.g., snow and wind)	2400Pa
Max. static load, back (e.g., wind)	2400Pa
Max. hailstone impact (diameter / velocity)	25mm / 23m/s

## Construction Materials

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Cell (quantity / material / dimensions )	36 / multi crystalline silicon
Encapsulant (material)	ethylene vinyl acetate (EVA)
Frame (material / color / anodization color)	anodized aluminum alloy / silver / clear

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