

# SunBravo PM060MW4/PM060MB4/PM060MW5

Mono-Crystalline Photovoltaic Module





Power Range 320 ~ 330 Wp



Multi-Busbar Design Enhanced module power output and reliability



Strong Wind Resistance
Dynamic mechanical loading 4 times higher than the IEC requirement



PID-Resistance Certified high PID resistance passing 1000hour tough environmental test



Superior Weak Light Performance Improved absorption of long wavelength light



Enhanced Salt Mist and Humidity Resistance 12 times more salt-mist resistant and 40% more moisture exclusion



Ammonia Test
Reliable in ammonia rich environment



## SunBravo PM060MW4/PM060MB4/PM060MW5 (320 ~ 330 Wp)

#### Electrical Data (STC) Nominal Power PN 320W 325W 330W Module Efficiency 18.5% 18.8% 19.1% Nominal Voltage V<sub>mp</sub> (V) 32.8 33.0 32.6 Nominal Current Imp (A) 9.83 9.92 10.00 Open Circuit Voltage Voc (V) 39.9 40. l 40.3 10.44 Short Circuit Current Isc (A) 10.35 10.53 0 / +3% Maximum Tolerance of PN

#### Electrical Data (NOCT)

| Nominal Power P <sub>N</sub>  | 23 I W | 235W | 238W |
|-------------------------------|--------|------|------|
| Nominal Voltage $V_{mp}$ (V)  | 29.0   | 29.2 | 29.4 |
| Nominal Current Imp (A)       | 7.96   | 8.03 | 8.10 |
| Open Circuit Voltage Voc (V)  | 36.4   | 36.6 | 36.8 |
| Short Circuit Current Isc (A) | 8.44   | 8.51 | 8.59 |

<sup>\*</sup> Above data are the effective measurement at Normal Operation Cell Temperature (NOCT) \* NOCT:irradiance 800 W/m², AM 1.5, air temperature 20 °C, wind speed 1 m/s

#### Temperature Coefficient

| NOCT                                  | 46 ± 2 °C  |  |
|---------------------------------------|------------|--|
| Typ. Temperature Coefficient of $P_N$ | -0.40% / K |  |
| Typ.Temperature Coefficient of Voc    | -0.30% / K |  |
| Temperature Coefficient of Isc        | 0.07% / K  |  |

#### Mechanical Characteristics

| Dimensions<br>(L x W x H) | 1696 x 1022 x 40 mm (66.77 x 40.23 x 1.57 in) *  |
|---------------------------|--|
| Weight                    | 19.6 kg (43.22 lbs)  |
| Front Glass               | High transparent solar glass (tempered), 3.2 mm (0.13 in)  |
| Cell                      | 60 monocrystalline solar cells   |
| Back Sheet                | Composite film   |
| Frame                     | Anodized aluminum frame  |
| Junction Box              | IP-68 rated with 3 bypass diodes   |
| Connector Type            | 1000V : MC4 KST4 ; KBT4 – I × 4 mm² (0.04 × 0.16 in²)<br>1500V : MC4 KST4-EVO2 / XY ; KBT4-EVO2 / XY – I × 4 mm² (0.04 × 0.16 in |

<sup>\*</sup> Module Dimension (L x W) Tolerance: ± 2 mm (0.079 in)

#### **Operating Conditions**

| -40 ~ +85 °C                 |
|------------------------------|
| -40 ~ +45 °C                 |
| PM060MW4 / PM060MB4 (1000 V) |
| PM060MW5 (I500 V)            |
| 15 A                         |
| 6000 Pa / 5400 Pa            |
| 4800 Pa                      |
|                              |

#### Warranties and Certifications

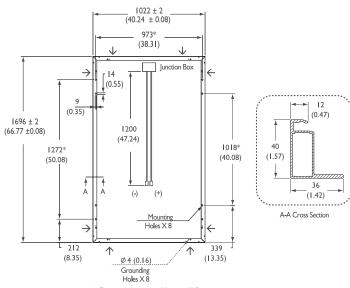
|                | Product Warranty      | Maximum 15 years for material and workmanship                      |
|----------------|-----------------------|--|
|                | Performance Guarantee | Guaranteed linear degradation to 82.5% for 25 years $^{*\text{I}}$ |
| Certifications |                       | According to IEC/EN 61215 and IEC/EN 61730 guidelines *2           |

<sup>\*</sup>I: Please refer to warranty letter for detail

### Packing Configuration

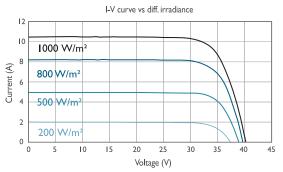
| Container             | 20' GP | 40' GP | 40' HQ |
|-----------------------|--------|--------|--------|
| Pieces per Pallet     | 26     | 26     | 26     |
| Pallets per Container | 6      | 13     | 26     |
| Pieces per Container  | 156    | 338    | 676    |

#### Dimensions mm (inch)



<sup>\*</sup> Distance between two Mounting Holes

### I-V Curve



Current/voltage characteristics with dependence on irradiance and module temperature.



About AU Optronics

AU Optronics (AUO) is a leading global manufacturer of TFT-LCD committed to providing green solutions to its worldwide customers in a manner that is sustainable and friendly to the environment. In addition to its strengths in product and technological innovation, AUO stresses its commitment to going green and to utilizing manufacturing excellence to develop high efficiency solar solutions for residential, commercial, and utility segments.



<sup>\*</sup> Above data are the effective measurement at Standard Test Conditions (STC) 
\* STC: irradiance  $1000\,\text{W/m}^2$ , spectral distribution AM 1.5, temperature  $25\pm2\,^\circ\text{C}$ , in accordance with EN 60904-3

<sup>\*2:</sup> Please confirm other certifications with official dealers

<sup>→</sup> Grounding Holes