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# **EnergyPal**

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

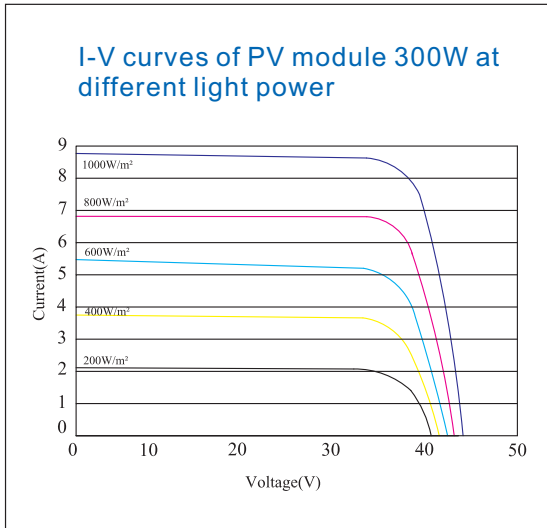
**Shenzhen Motoma Power Co., Ltd.**

**290~320Wp**

**315Wp**

Also available on the web at  
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## I-V Curves

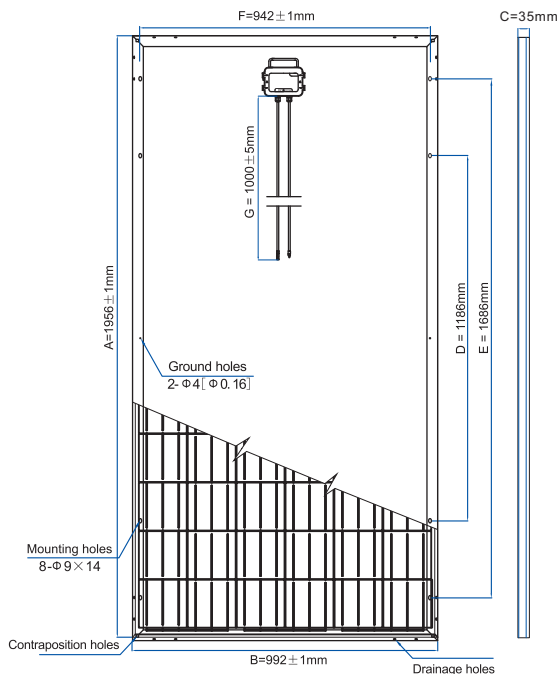


## Typical Electrical Characteristics

| Solar cells:                       | Poly-Crystalline 156x156mm<br>72pcs. (6x12) —3 bus bars |       |       |       |       |       |
|------------------------------------|---|-------|-------|-------|-------|-------|
| Max-power                          | 290Wp   | 295Wp | 300Wp | 305Wp | 310Wp | 320Wp |
| Power Tolerance                    | 0 to +6W  |       |       |       |       |       |
| Voltage at Pmax (Vmp)              | 36.5V   | 36.6V | 36.7V | 36.8V | 36.9V | 37.1V |
| Current at Pmax (Imp)              | 7.95A   | 8.06A | 8.17A | 8.29A | 8.40A | 8.58A |
| Open-Circuit Voltage (Voc)         | 44.8V   | 44.9V | 45.0V | 45.1V | 45.2V | 45.5V |
| Short-Circuit Current (Isc)        | 8.46A   | 8.67A | 8.79A | 8.97A | 9.09A | 9.28A |
| Max-System Voltage (VDC)           | 1000V(IEC), 600V(UL)                                    |       |       |       |       |       |
| Cell Efficiency                    | 16.8%   | 17.0% | 17.3% | 17.6% | 17.9% | 18.2% |
| Module Efficiency                  | 14.9%   | 15.2% | 15.5% | 15.7% | 16.0% | 16.5% |
| No. of Bypass Diodes (pcs.)        | 3   |       |       |       |       |       |
| Max. Series Fuse (A)               | 12A   |       |       |       |       |       |
| Temperature Coefficient of Pmax    | -0.45%/°C   |       |       |       |       |       |
| Temperature Coefficient of Voc     | -0.34%/°C   |       |       |       |       |       |
| Temperature Coefficient of Isc     | 0.05%/°C  |       |       |       |       |       |
| Nominal Operating Cell Temperature | 45±2°C  |       |       |       |       |       |

\*STC Conditions (1000W/m²; 1.5 AM and 25°C Cell temperature)

## Dimensions



## Mechanical Characteristics

|   |   |
|---|---|
| Cable type, Cross-sectional area and Length | Φ=4mm <sup>2</sup> , L=1000±5mm   |
| Type of Connector                           | Compatible type MC4   |
| Dimension A×B×C                             | 1956x992x35mm(77.01x39.06x1.37")  |
| Weight                                      | 23.2kg ( 51.0lb )   |
| No. of Draining Holes In Frame              | 16  |
| Construction                                | Glass: High Transmission, Low Iron, Tempered<br>Glass 3.2mm<br>Encapsulation: EVA<br>Back side: White |
| Junction Box (protection degree)            | IP 67   |
| Frame                                       | Clear anodized aluminum alloy type 6063T5 frame   |

## Qualification Test Parameters

|                               |                                   |
|-------------------------------|-----------------------------------|
| Dielectric Insulation Voltage | 6000V DC max                      |
| Operating Temperature         | -40°C to +85°C                    |
| Max load                      | 5400Pa                            |
| Hailstone impact              | 25mm ( 1inch ) at 23m/s ( 52mph ) |
| Tire safety class             | Class C                           |

## Packaging Configuration

|                              |                          |                |
|------------------------------|--------------------------|----------------|
| Packaging Configuration      | 20pcs./box and 2pcs./box |                |
| Quantity of Big Box/Pallet   | 1box/pallet              | 1 boxes/pallet |
| Quantity of Small Box/Pallet | /                        | 9 boxes/pallet |
| Loading Capacity             | 440pcs./40'HQ            | 190pcs./20'GP  |

► Caution: Read Safety And Installation Instructions Before Using This Product